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PSYCHOLOGY AND PHILOSOPHY

I.—MR. BERTRAND RUSSELL ON OUR KNOWLEDGE OF THE EXTERNAL WORLD.

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PHILOSOPHY, it is to be gathered from Mr. Russell's recent *Lowell Lectures*, is now for the first time in history coming into its own, thanks to the recent development of mathematical logic.[1] One of the firstfruits of this new logic Mr. Russell now gives to the world in the shape of an account of our knowledge of the physical world, based on the new logic as the instrument of discovery. It is the object of this paper to examine certain of the more important features of this account, as presented in the *lectures* and in a recent article in *Scientia*.[2] It must, however, be premised that any discussion of Mr. Russell's account, to be adequate, would have to take the form of a commentary on it sentence by sentence. No shorter procedure could reveal the number and nature of the difficulties which it involves. This paper is intended as the merest *pis aller* and, for brevity's sake, textual comments will be, as far as possible, relegated to notes.

Mr. Russell's view of the problem to be solved is the old one common to the empiricists from Locke to Mill. It arises from the fact that, broadly speaking, in reflecting on his own and other people's pre-critical beliefs, Mr. Russell unquestioningly accepts the empiricist's starting-point. Taking for granted that what is known by perception or observation

[1] Pp. 46, 59.

[2] July, 1914. The lectures and the article will be referred to as L. and S. respectively.

is limited to what he calls the 'immediate data of sense,' *viz.* 'certain patches of colour, tastes, sounds, smells, etc., with certain spatio-temporal relations',[1] he is naturally struck by the difference between this primitive knowledge and the beliefs of common sense and of science. Common sense believes in the existence of things, *i.e.* 'fairly permanent and fairly rigid bodies—tables and chairs, stones, mountains, the earth and moon and sun'.[2] The physicist believes in the existence of a world the contents of which are very different from sense data; 'molecules have no colour, atoms make no noise, electrons have no taste, and corpuscles do not even smell'.[3] The contrast with respect to science is also brought out thus: 'We thus have still in physics, as we had in Newton's time, a set of indestructible entities which may be called particles, moving relatively to each other in a single space and a single time. The world of immediate data is quite different from this. Nothing is permanent; even the things that we think are fairly permanent, such as mountains, only become data when we see them, and are not immediately given as existing at other moments. So far from one all-embracing space being given, there are several spaces for each person, according to the different senses which give relations that may be called spatial.'[4] The question therefore arises, 'What sort of justification can we give for these beliefs of common sense and science?'

Mr. Russell's treatment of this problem is largely determined by his natural, and, I would venture to add, reasonable distrust of the common attempt to show that we may *infer* the existence of the 'things,' *i.e.* bodies, of common sense and the atoms of science from the data of sense, by appeal to some *a priori* principle, such as that 'our sense-data have *causes* other than themselves and that something can be known about these causes by inference from their effects'.[5] Mr. Russell's rejection of this method, however, is not unqualified. 'It may be necessary to adopt this way to some extent, but so far as it is adopted, physics ceases to be empirical or based upon observation and experiment alone. Therefore this way is to be avoided as much as possible.'[6]

[1] S., 1. Mr. Russell gives no reason except convenience for the inclusion of 'certain spatio-temporal relations' among sense data.
[2] L., 102. [3] S., 1. [4] L., 104. [5] S., 2.
[6] S., 2. I do not understand the qualification 'as much as possible'. It must either be maintained that we know some given principle *a priori* or that we do not. In the former case, why should we not be allowed to

As the only alternative to such an inferential apprehension of the existence of bodies would seem to be a direct apprehension of their existence, and Mr. Russell's mere statement of the problem has excluded the view that a direct apprehension is possible, it might seem to follow that no justification of common sense and science is possible. But Mr. Russell thinks otherwise. A third method of vindicating these beliefs is possible, the discovery of which is the achievement of the new logic.

"We may succeed in actually defining the objects of physics as functions of sense-data. Just in so far as physics leads to expectations this *must* be possible, since we can only expect what can be experienced. And in so far as the physical state of affairs is inferred from sense-data, it must be capable of expression as a function of sense-data. The problem of accomplishing this expression leads to much interesting logico-mathematical work." [1]

The account of this new method is developed later. It is described as a process of 'construction' or 'logical construction'. Instead of inferring the existence of the things of common sense, and the atoms and the one all-embracing space and time of physics we are to 'construct' them, the supreme maxim in scientific philosophising being that 'wherever possible, logical constructions are to be substituted for inferred entities'.[2] As Mr. Russell's answer to his own problem is throughout on terms of 'construction,' and as Mr. Russell seems to think that the notion of construction has introduced the same kind of advance into philosophy as Galileo introduced into physics,[3] it is important to ascertain exactly what Mr. Russell means by 'construction'. Unfortunately this is difficult to do. Not only does Mr. Russell not explain what he means by 'construction'—though he often refers to construction as 'logical construction,' as 'hypothetical construction,' and as 'intellectual construction,' presumably to distinguish it from literal construction, such as the making of a chair—but there is also great variation in the nature of the things said to be constructed. Sometimes what is said to be constructed is 'an hypothesis,' 'an explanation,' 'a largely hypothetical picture of the world,' [4] but sometimes—and even in the same

use the knowledge? In the latter, what could we gain by allowing ourselves to do what could only amount to pretending that we had the knowledge?

[1] S., 2. This work is also (L., 133) referred to as 'logical manipulation', a phrase which recalls Jowett's description of logic as a dodge.

[2] S., 9. [3] L., 59. [4] L., 87, 93.

context as the preceding—it is some reality, *e.g.* 'a world', 'perspective space', 'physical space', 'an instant', 'a point', 'the state of a thing', 'matter'. The latter, however, is plainly the normal usage. Further, this process of constructing a reality is implied to be closely related to, if not identical with, the process of definition. Thus 'a complete application of the method which substitutes constructions for inferences would exhibit matter wholly *in terms of* sense-data,'[1] and from another passage[2] it appears that to 'define a thing as a class' is to construct it in terms of that class. Perhaps two passages, taken together, best reveal Mr. Russell's meaning.

"The method by which the construction proceeds is closely analogous in these and all similar cases. Given a set of propositions normally dealing with the supposed inferred entities, we observe the properties which are required of the supposed entities in order to make these propositions true. By dint of a little logical ingenuity, we then construct some logical function of less hypothetical entities which has the requisite properties. This constructed function we substitute for the supposed inferred entities, and thereby obtain a new and less doubtful interpretation of the body of propositions in question."[3]

"The space of geometry and physics consists of an infinite number of points, but no one has ever seen or touched a point. If there are points in a sensible space, they must be an inference. It is not easy to see any way in which, as independent entities, they could be validly inferred from the data; thus here again, we shall have, if possible, to find some logical construction, some complex assemblage of immediately given objects, which will have the geometrical properties required of points. It is customary to think of points as simple and infinitely small, but geometry in no way demands that we should think of them in this way. All that is necessary for geometry is that they should have mutual relations possessing certain enumerated abstract properties, and it may be that an assemblage of data of sensation will serve this purpose. Exactly how this is to be done, I do not yet know, but it seems fairly certain that it can be done."[4]

It would appear from these passages that the meaning

[1] S., 10. The italics are mine. [2] S., 9. [3] S., 10.

[4] L., 113-114. We naturally ask 'How could anything but a point possibly have the properties of a point?' and we are not surprised to find Mr. Russell saying a little later (p. 124): 'when a point or an instant is defined as a class of sensible qualities, the first impression likely to be produced is one of wild and wilful paradox'.

and *rationale* of the process of construction is as follows. Certain beliefs of common sense and science presuppose the existence of certain realities, such as geometrical points, which are neither given in sense nor capable of being inferred from realities given in sense. When such a reality, say an X, is presupposed, we must try to find a group of sense-given realities, A, B, C, D, which, though it is, as we know different from an X, has the properties which an X must have, if the beliefs which presuppose the existence of Xs are true. In other words, we have to find a group of sense-given realities, A, B, C, D, such that the group, though different from an X, has at least up to a certain point the properties of an X. Hence (1) 'constructing an X,' means finding a group of sense-given realities severally and collectively different from an X, but possessing, up to a certain point the properties of an X; and (2) when an X is called 'a construction,' it is meant that certain other realities, as a whole and in their mutual relations, though different from an X, have the properties which common sense or science presupposes an X to have.

This interpretation enables us to understand two pieces of Mr. Russell's subsequent terminology which would be otherwise incomprehensible. (1) Nothing in the sequel is stranger to the simple-minded reader than what strikes him as Mr. Russell's habit of defining things as being what they palpably are not. Thus Mr. Russell defines a 'thing', *i.e.* a body, as the class of its appearances. Now 'a thing' being according to Mr. Russell a construction, what this means is not that a thing or a body really is the class of its appearances, but that this class has the properties which common sense presupposes a body to have, so that while we can criticise common-sense beliefs as presupposing the existence of certain realities, *viz.* bodies, which are essentially unverifiable, we can still find a core of truth in these beliefs, by treating them as if they were beliefs not about bodies but about the classes of their appearances, the reality of which is indubitable. (2) Mr. Russell speaks of using the realities he has constructed to 'interpret' the facts of physics and physiology.[1] This will really mean that if in the statements of physicists we take the terms 'atoms', 'physical space', etc., to stand not for what the physicists mean them to stand but for Mr. Russell's 'constructions', these statements will become defensible, being no longer statements about realities of whose existence we must ever remain doubtful.

[1] *E.g.* L., 93.

We should naturally gather from the passages referred to that since the materials out of which the world is to be constructed are data of sense, Mr. Russell would be bound to end with a Berkeleian view of the physical world, 'a thing' standing simply for what Berkeley called 'a collection of ideas, observed to go together', and for what Mr. Russell would call a certain collection or assemblage of sense data of some particular mind.[1] And a passage in the Lowell Lectures[2] seems to make this conclusion inevitable. He is there discussing how we are justified in describing what common sense would describe by saying that a table viewed from one place presents a different appearance from that which it presents from another, and that by putting on blue spectacles we alter the appearance of a table. And he urges that the experienced facts can be stated without the common-sense assumption of 'a table of which we see the appearances' and of 'blue spectacles'. The passage—which is throughout reminiscent of Berkeley—is too long to quote. But two sentences will show its drift. 'By experience of the correlation of touch and sight sensations, we become able to associate a certain place in touch space with a corresponding place in sight space. . . . All that is really known is that the visual appearance in question, together with touch, will lead to certain sensations, which can necessarily be determined in terms of the visual appearance, since otherwise they could not be inferred from it'.[3] And Mr. Russell concludes: 'I think it may be laid down generally that, in so far as physics or common sense is verifiable, it must be capable of interpretation in terms of actual sense-data',[4] meaning, I suppose, that the true beliefs corresponding to the beliefs of common sense and science must be beliefs about actual sense data.

At one point Mr. Russell goes even further and represents as the ideal of scientific knowledge an account of the objects of physical science based on a solipsistic view. 'A complete application of the method which substitutes constructions for inferences would exhibit matter wholly in terms of sense-data, and even, we may add, of the sense-data of a single person, since the sense-data of others cannot be known without some element of inference. This, however, must remain for the present an ideal, to be approached as nearly as possible, but to be reached, if at all, only after a

[1] In L., 108, Mr. Russell speaks of 'certain fairly stable collections of appearances, such as landscapes, the furniture of rooms'.
[2] L., 77. [3] L., 80. [4] L., 82.

long preliminary labour of which as yet we can only see the very beginning.'[1]

This, however, is not the direction which Mr. Russell's thought actually takes. Though Mr. Russell does not say so, he seems to feel that the sense-data of a single individual, even if supplemented by those of others, are inadequate to form what he describes as the 'ultimate constituents' out of which the world is to be constructed. And he takes the apparently heroic remedy of maintaining in effect that the sense-data of any individual, *e.g.* 'that patch of colour which is momentarily seen when we are said to look at the table, that particular hardness which is felt when we are said to press it, or that particular sound which is heard when we rap it', exist independently of being given in sense to that individual, *i.e.*, of being seen, felt, or heard, etc., by him. The remedy at least *seems* heroic, for Mr. Russell does not hold that these qualities, though independent of the individual, are dependent on something else, *viz.* bodies of which they are the qualities, as common sense might be supposed to think. The very notion of a substratum belongs, according to him, to the prehistoric metaphysics to which common sense is due.[2] What Mr. Russell holds is that smells, colours, sounds, etc., have an independent existence of their own, in the way in which common sense thinks of bodies as having an independent existence.[3] In consequence he prefers to refer to the various realities which

[1] S., 10. This ideal, if it is to be anything, must, it would seem, be not merely *an* ideal but *the* ideal. If so, what could be the use of trying to do anything but to attain it, and how could the falling back on any other method as a *pis aller* be of any use at all?

[2] S., 8 (*cf.* L., 102). Mr. Russell's habit of representing common-sense beliefs as the outcome of metaphysical theorising makes it hard to see how Mr. Russell could distinguish common sense and philosophy.

[3] A passage (S., 4-6) in which *prima facie* Mr. Russell is stating this view only gives us a stone in response to our appeal for bread. He is explaining that he regards sense-data as not mental, and further that whether this is so or not, he is concerned to maintain that they are physical. But when we look for the meaning which Mr. Russell attaches to 'mental' and 'physical,' we find (*a*) that 'a particular is called mental when it is aware of something'—which implies that only a mind is mental, and then only when it is aware of something. Yet no one would wish to contend that a sound or a colour was mental in the sense that it was a mind when it is aware of something. And we find (*b*) that 'physical' in preliminary discussions only means 'what is dealt with by physics' and that 'physics is a subject which tells us something about some of the constituents of the actual world'. But, since the question is simply about the nature of the constituents, how does the statement that sense-data are physical in *this* sense of 'physical' take us any farther?

form the sense-data of individuals, *i.e.* smells, colours, etc., as *sensibilia* rather than as sense-data.[1]

[1] Considering the importance which Mr. Russell attaches to the proper formulation of any problem, the following passage (S., 4) is remarkable:—

"I shall give the name *sensibilia* to those objects which have the same metaphysical and physical status as sense-data, without necessarily being data to any mind. Thus the relation of a *sensibile* to a sense-datum is like that of a man to a husband: a man becomes a husband by entering into the relation of marriage, and similarly a *sensibile* becomes a sense-datum by entering into the relation of acquaintance. It is important to have both terms; for we wish to discuss whether an object which is at one time a sense-datum can still exist at a time when it is not a sense-datum. We cannot ask 'Can sense-data exist without being given?', for that is like asking 'Can husbands exist without being married?' We must ask 'Can *sensibilia* exist without being given?' and also, 'Can a particular *sensibile* be at one time a sense-datum, and at another not?' Unless we have the word *sensibile* as well as the word 'sense-datum,' such questions are apt to entangle us in trivial logical puzzles."

To follow this passage it is necessary to realise that Mr. Russell really uses his own term 'sense-data' in two senses. If we gauge its meaning from general statements which throw light on its meaning, we find that, as its etymology suggests, it is a relative term which stands for realities given in sense to a mind—whatever 'given in sense' turns out to mean—and which conveys nothing about their intrinsic nature. If, however, we ascertain its meaning from Mr. Russell's instances, we find that it is an absolute term which stands for the genus of which certain realities having an intrinsic nature of their own, *viz.* colours, sounds, smells, tastes, and feelings of touch are the species (I exclude 'certain spatio-temporal relations' as incapable of being brought into line with the rest), and which conveys nothing about any relation in which these realities stand to a mind. Probably the nearest term in ordinary language for this genus is 'sensations'. (This double usage is, of course, no accident. It is based on Mr. Russell's view that the realities which are given in sense, *i.e.* which are sense-data in the first sense, consist of sense-data in the second sense. But to be justified, the two senses must be convertible, which would require not only that what is a sense-datum in the first sense must be a sense-datum in the second, but also that what is a sense-datum in the second sense must be a sense-datum in the first—which is just the view that Mr. Russell wishes to avoid.)

Given this distinction it is clear that the proper formulation of Mr. Russell's problem is "Are sense-data in the second sense necessarily also sense-data in the first?" But consider Mr. Russell's view. Of course Mr. Russell rightly says that the question, "Can sense-data exist without being given?" is trivial, because he here means by 'sense-data' realities given in sense, *i.e.* sense-data in the first sense. From the very form of the question the answer is necessarily 'No'. But is Mr. Russell's emendation any improvement? If '*sensibilia*' is taken in its etymological and natural sense of 'realities capable of being given in sense,' the question, "Can '*sensibilia*' exist without being given?" is equally trivial, since the very form of the question requires the answer to be 'Yes'. And if we take '*sensibilia*' in the sense assigned to it by Mr. Russell of 'objects having the same metaphysical and physical status as sense-data, without necessarily being data to any mind'—which can only mean 'realities which are sense-data in the second sense, but which need not be sense-data in the first sense',

The reasons given by Mr. Russell appears to be two: (1) 'Logically a sense-datum is a particular of which the subject is aware. . . . The existence of the sense-datum is therefore not logically dependent on that of the subject. . . . There is therefore no *a priori* reason why a particular which is a sense-datum should not persist after it has ceased to be a datum, nor why other similar particulars should not exist without ever being data.'[1] Since this contention really identifies 'being given in sense' with 'being apprehended,' we should expect the conclusion, if any, to be that what is given in sense not only *may* but *must* be independent of being so given. But in any case the contention must be untrue, since in certain acts of memory, *e.g.* in remembering a past thought, there is certainly awareness of a particular, and if Mr. Russell's contention were true, the particular in being remembered would be given in sense. (2) "I regard sense-data as not mental, and as being, in fact, part of the actual subject-matter of physics. There are arguments, shortly to be examined, for their subjectivity, but these arguments seem to me to prove *physiological* subjectivity, *i.e.* causal dependence on the sense-organs, nerves, and brain. The appearance which a thing presents to us is causally dependent upon these, in exactly the same way as it is dependent upon intervening fog or smoke-coloured glass. . . . We have not the means of ascertaining how things appear from places not surrounded by brain and nerves and sense-organs, because we cannot leave the body; but continuity makes it not unreasonable to suppose that they present some appearance at such places.[2] Any such appearance would be included among sensibilia. . . . What the mind adds to *sensibilia*, in fact is *merely* awareness." Here Mr. Russell's language suggests that he is not even convinced by his own argument. Its weakness lies on the surface. Not only does the appeal to continuity suggest the opposite conclusion, since the argument presupposes the existence of the brain, nerves, and sense organs, but Mr. Russell is not justified, at any rate at this stage of his argument, in presupposing the existence of these bodies of common sense at all.[3] The really remarkable thing, how-

the question is not only trivial but also begs the question at issue by tacitly assuming that sense-data in the second sense need not be sense-data in the first. The truth is that not merely does Mr. Russell not deliver us from his 'trivial logical puzzle' but it is simply Mr. Russell's own equivocal use of the term 'sense-data' that is responsible for it.

[1] S., 6. [2] S., 4, 5.

[3] Mr. Russell actually says: 'Berkeley's attack (*sc.* on an independent physical world) *as reinforced by the physiology of the sense organs and*

ever, is that Mr. Russell confines himself to physiological considerations and never even raises what would seem the natural question to put, *viz.* 'Is it not simply nonsense to speak of an appearance which is not an appearance to some one?' and that consequently he never even does so much as to refer to the arguments used by Berkeley to establish the dependence of what is perceived upon a percipient.

So far I have only summarised Mr. Russell's view (1) of the proper *method* of vindicating common sense and science, *viz.* that of 'constructing' their worlds, and (2) of the *materials* out of which these worlds are to be constructed. We have now to turn to Mr. Russell's account of the actual process of construction. This is stated to be a long and difficult journey. That Mr. Russell may not be misrepresented, his account is best exhibited by quotations of which the first is inevitably lengthy.

> We have now to explain the ambiguity in the word "place," and how it comes that two places of different sorts are associated with every sense-datum, namely the place *at* which it is and the place *from* which it is perceived. The theory to be advocated is closely analogous to Leibniz's monadology, from which it differs chiefly in being less smooth and tidy.
>
> The first fact to notice is that, so far as can be discovered, no sensibile is ever a datum to two people at once. The things seen by two different people are often closely similar, so similar that the same *words* can be used to denote them, without which communication with others concerning sensible objects would be impossible. But, in spite of this similarity, it would seem that some difference always arises from difference in the point of view. Thus each person, so far as his sense-data are concerned, lives in a private world. This private world contains its own space, or rather spaces, for it would seem that only experience teaches us to correlate the space of sight with the space of touch and with the various other spaces of other senses. This multiplicity of private spaces, however, though interesting to the psychologist, is of no great importance in regard to our present problem, since a merely solipistic experience enables us to correlate them into the one private space which embraces all our own sense-data. The place *at* which a sense-datum is, is a place in private space. . . .
>
> In addition to the private spaces belonging to the private worlds of different percipients, there is, however, another space, in which one whole private world counts as a point, or at least as a spatial unit. This might be described as the space of points of view, since each private world may be regarded as the appearance which the universe presents from a certain point of view. I prefer however to speak of it as the space of *perspectives*, in order to obviate the suggestion that a private world is only real when some one views it. And for the same reason,

nerves and brain, is very powerful'. (L., 64. The italics are mine.) The remark seems only comparable with that of Dr. Johnson.

when I wish to speak of a private world without assuming a percipient, I shall call it a "perspective".

We have now to explain how the different perspectives are ordered in one space. This is effected by means of the correlated "sensibilia" which are regarded as the appearances, in different perspectives, of one and the same thing. By moving, and by testimony, we discover that two different perspectives, though they cannot both contain the same "sensibilia," may nevertheless contain very similar ones;[1] and the spatial order of a certain group of "sensibilia" in a private space of one perspective is found to be identical with, or very similar to, the spatial order of the correlated "sensibilia" in the private space of another perspective. In this way one "sensibile" in one perspective is correlated with one "sensibile" in another. Such correlated "sensibilia" will be called "appearances of one thing". . . .

The arrangement of perspectives in a space is effected by means of the differences between the appearances of a given thing in the various perspectives. Suppose, say, that a certain penny appears in a number of different perspectives; in some it looks larger and in some smaller, in some it looks circular, in others it presents the appearance of an ellipse of varying eccentricity. We may collect together all those perspectives in which the appearance of the penny is circular. These we will place on one straight line, ordering them in a series by the variations in the apparent size of the penny. Those perspectives in which the penny appears as a straight line of a certain thickness will similarly be placed upon a straight line, and ordered as before by the apparent size of the penny. By such means, all those perspectives in which the penny presents a visual appearance can be arranged in a three-dimensional spatial order. . . .

The space whose construction has just been explained, and whose elements are whole perspectives, will be called "perspective-space".

The world which we have so far constructed is a world of six dimensions, since it is a three-dimensional series of perspectives, each of which is itself three-dimensional. We have now to explain the correlation between the perspective space and the various private spaces contained within the various perspectives severally. It is by means of this correlation that the one three-dimensional space of physics is constructed; and it is because of the unconscious performance of this correlation that the distinction between perspective space and the percipient's private space has been blurred, with disastrous results for the philosophy of physics. Let us revert to our penny: the perspectives in which the penny appears larger are regarded as being nearer to the penny than those in which it appears smaller, but as far as experience goes the apparent size of the penny will not grow beyond a certain limit, namely that where (as we say) the penny is so near the eye that if it were any nearer it could not be seen. By touch we may prolong the series until the penny touches the eye, but no further. If we have been travelling along a line of perspectives in the previously defined sense, we may, however, by imagining the penny removed, prolong the line of perspectives by means, say, of another penny; and the same may be done with any other line of perspectives defined by means of the penny. All these lines meet in a certain place, that is, in a certain perspective. This perspective will be defined as "the place where the penny is".

[1] As Mr. Joseph has observed to me, since no two appearances in different perspectives are ever presented to the same individual, we could not possibly discover the similarity by testimony or otherwise.

It is now evident in what sense two places in constructed physical space are associated with a given "sensibile". There is first the place which is the perspective of which the "sensibile" is a member.[1] This is the place *from* which the "sensibile" appears.[2] Secondly there is the place where the thing is of which the "sensibile" is a member, in other words an appearance; this is the place *at* which the "sensibile" appears. The "sensibile" which is a member of one perspective is correlated with another perspective, namely that which is the place where the thing is of which the "sensibile" is an appearance. To the psychologist the "place from which" is the more interesting, and the "sensibile" accordingly appears to him subjective and where the percipient is. To the physicist the "place at which" is the more interesting, and the "sensibile" accordingly appears to him physical and external. The causes, limits and partial justification of each of these two apparently incompatible views are evident from the above duplicity of places associated with a given "sensibile".

We have seen that we can assign to a physical thing a place in the perspective space. In this way different parts of our body acquire positions in perspective space, and therefore there is a meaning (whether true or false need not much concern us) in saying that the perspective to which our sense-data belong is inside our head. Since our mind is correlated with the perspective to which our sense-data belong, we may regard this perspective as being the position of our mind in perspective space. If, therefore, this perspective is, in the above defined sense, inside our head, there is a good meaning for the statement that the mind is in the head. We can now say of the various appearances of a given thing that some of them are nearer to the thing than others;[3] those are nearer which belong to perspectives that are nearer to "the place where the thing is".[4]

After enunciating even greater paradoxes Mr. Russell goes on to define matter, *i.e.*, I suppose, the atoms of the physicist. "The *matter* of a given thing is the limit of its appearances as their distance from the thing diminishes."[5] And Mr. Russell shortly afterwards goes on to say: 'Consider for example the infinite divisibility of matter. In looking at a given thing and approaching it, one sense-datum will become several, and each of these will again divide.[6]

[1] As Mr. Russell defines a perspective as a private world without the assumption of a percipient, he is here definitely *identifying* a private world without a percipient with a point.

[2] Surely this place should only be described as 'the place from which the percipient perceives the sensibile which appears'. It cannot be, as Mr. Russell's language implies, that the sensibile appears from this place; at best it can only be that the percipient of it perceives it from that place.

[3] Why should any one want to find a meaning for saying that some appearances of a thing are nearer to it than others, or even for saying that the mind—which after all is not a body—is in the head?

[4] S., 11-15.

[5] S., 16. I take 'the limit of its appearances' to mean that appearance which forms a limit.

[6] How can a sense-datum, *e.g.* a noise or a colour, become several or divide?

Thus *one* appearance may represent [1] *many* things, and to this process there seems no end. Hence in the limit, when we approach indefinitely near to the thing, there will be an indefinite number of units of matter corresponding to what, at a finite distance, is only one appearance. This is how infinite divisibility arises. [2]

I append one more quotation, which throws light on Mr. Russell's 'interpretation' of 'a thing'.

> We have seen how correlated appearances in different perspectives are combined to form one "thing" at one moment in the all-embracing time of physics. We have now to consider how appearances at different times are combined as belonging to one "thing," and how we arrive at the persistent "matter" of physics. The assumption of permanent substance, which technically underlies the procedure of physics, cannot of course be regarded as metaphysically legitimate: just as the one thing simultaneously seen by many people is a construction, so the one thing seen at different times by the same or different people must be a construction, being in fact nothing but a certain grouping of certain "sensibilia".
>
> We have seen that the momentary state of a "thing" is an assemblage of "sensibilia," in different perspectives, not all simultaneous in the one constructed time, but spreading out from "the place where the thing is" with velocities depending upon the nature of the "sensibilia".[3]

In considering this position I shall endeavour to ignore the endless minor difficulties and to concentrate on essentials. The position plainly falls into three parts, which may be dealt with in order, the doctrine of private worlds, each containing a private space, the doctrine of 'perspective' space, and the doctrine of 'things'.

The first doctrine is expressed by saying that the individual, so far as his sense-data are concerned, lives in a private world, which contains a private space. We have to consider in turn: (1) the justification which Mr. Russell offers for this statement, (2) its precise meaning, and (3) its truth.

The justification offered for it lies in the thesis that no sensibile is ever a datum to two people at once, and this again is justified thus: "*So far as can be discovered*,[4] no sensibile is

[1] This view of the relation between an appearance and the thing of which it is an appearance is not elucidated either here or elsewhere.

[2] S., 17. What is meant by 'arises'?

[3] S., 19-20. Mr. Russell appears to be thinking of such a fact as that if two persons stand at different distances from a bell which is being rung, they hear different sounds at different moments. If so, (1) the implied attribution of velocity to noises involves an erroneous identification of a sound with the vibrations of air which form part of its physical conditions, and (2) the implication that the noises, taken together, are, or are at least a substitute for, the state of the bell is plainly untrue, even if we ignore the fact that the noises take place at different times.

[4] The italics are mine.

ever a datum to two people at once. The things seen by two different people are often closely *similar*.[1] . . . But in spite of this similarity it would seem that some difference always arises from difference in the point of view." Now if this passage be examined, it will be seen that the consideration which is really moving Mr. Russell is different from that which he ostensibly puts forward, and that while the latter is both untenable in itself and quite inconclusive, the former presupposes the truth of the very view which it is Mr. Russell's object to destroy.

Ostensibly, as is shown by the words, 'so far as can be discovered,' Mr. Russell's reason for holding that no sensibile is ever a datum to two people at once is empirical or inductive. It is that, so far as experience has gone, the appearances presented by things to different people have never been more than closely similar. Now not only does this assertion convey the false suggestion that if experience had shown two appearances to be identical in character, they would be numerically identical, but it implies equally falsely that *experience* can decide that appearances presented to *different* individuals are only closely similar. And it is wholly inconclusive, since to maintain only that, so far as experience has gone, the appearances are different is to imply that in certain cases they might be the same. And what could Mr. Russell say of the case which common sense would describe as that where two men with precisely similar organs saw precisely similar bodies from precisely similar points of view? The case is certainly possible, and how could Mr. Russell deny that in that case the appearances would be identical in character? Yet what Mr. Russell has to show is that in *all* cases the appearances *must* be different. For what Mr. Russell wants to show is that A's data of sense form a world private to him, distinct from the private world formed by B's data of sense, and from the world of science. And, though 'distinct worlds' can only be a *façon de parler*, since after all there is only one world, it is clear that when Mr. Russell refers to A's data of sense and B's data of sense as distinct *worlds*, he is implying that they each form a different system such that a datum belonging to the one cannot belong to the other. Otherwise the distinction between them as distinct worlds, *i.e.* distinct systems, would break down, and they would be implied to be parts of *one* world or system. Hence Mr. Russell has to show that there is something in a sense-datum to A which makes it *impossible* for it to be a sense-datum to B.

The consideration which is really moving Mr. Russell is

revealed by his reference to *difference in the point of view*, and is one which is not empirical at all. It is that which the plain man would express, and, to my mind, truly express, by saying that since two men in looking, *e.g.* at the same chair, must look at it from different positions, there *must* be some difference between the appearances which it presents to them. And this contention presupposes the truth not only of the position which at the moment Mr. Russell is trying to destroy, *viz.* that two people can see the same thing, but also of the position which it is one of Mr. Russell's chief objects to supplant, *viz.* that the realities which we see are the things of common sense, *i.e.* bodies, and spatial relations between them, and not appearances and spatial relations between them. For how can it be argued that the appearance presented by the reality which A sees must differ from that presented by the reality which B sees *owing to the difference of point of view*, unless it is assumed (1) that the realities which they see are bodies, and (2) that these realities are one and the same body. It is meaningless to speak of such differences unless the realities seen are bodies and not, *e.g.*, tastes or sounds or smells. And the bodies seen must be one and the same body; for there is no difficulty whatever in allowing that two different bodies might present appearances identical in character to two different people, provided only that they saw them from corresponding positions. And when Mr. Russell says that the things seen by two different people are often closely similar and then goes on to add that some difference in the things seen always arises from difference in the point of view, there is absolutely no argument unless what he means is that the appearances presented by the *same thing* seen by two people are, though often closely similar, always different. It looks as though Mr. Russell, in order to establish his conclusion that the appearances are different, starts from the common-sense view that A and B in certain cases see the same thing, and then, in order to make his conclusion conform to his general view that what A and B see is never one body but always two different appearances, goes back upon his starting-point by expressing his conclusion in a form which implies that what A and B see are the different appearances.[1]

We have now to ask what exactly is *meant* by the statement: 'Each person, so far as his sense-data are concerned,

[1] 'No sensibile is ever a datum to two people at once' must in the case of sight mean that two people never at once see the same *appearance*. The qualification 'at once', it may be noted, is inconsistent with Mr. Russell's doctrine that the sensibilia of each man forms a private world.

lives in a private world. This private world contains its own space.' 'Lives in,' though vague, is easily interpreted. Mr. Russell obviously means: 'The realities which are given in sense to each individual form a private world'. But what is meant by referring to this world as 'private'? The context suggests that Mr. Russell's 'private,' which must of course be expanded to 'private to some one,' is most naturally interpreted, if 'private to me' is taken to mean 'capable of being perceived by me alone,' with the implication that whatever is so called exists independently of my perception. For Mr. Russell seems to mean by 'my private world' that system of realities which I alone can perceive, and he holds that my sense-data exist independently of me.

But this sense of 'private' would be fatal to Mr. Russell's distinction between different worlds, *viz.* the 'private' worlds of individuals and the 'non-private' world of science. For imagine two groups of realities, each only capable of being seen by different individuals but independent of them. Imagine, for instance,[1] another planetary system so remote from ours that I who live on this earth could not possibly perceive any body belonging to it. Imagine also an inhabitant of that system similarly incapable of perceiving any body belonging to our planetary system. What shadow of a reason could there be for referring to the two systems as distinct worlds? Each being independent of its percipient, there is no difficulty whatever in allowing that the members of both together form one system, *viz.* one system of bodies in space. And I should have to think of them thus. For suppose the inhabitant of the other system had some means of communicating with me about his system. I should in fact, and should have to, think of his system as forming part of one world in space with mine. The mere fact that I could not discover and should know that I could not discover the distance between the two systems and their relative positions would not prevent my thinking that they were parts of one system and that there was a certain distance between them and that they had a relative position. Perhaps Mr. Russell would rejoin that what he would call *a* space consists of the realities which occupy it in their mutual relations, and that therefore the two systems supposed must be regarded as occupying two spaces, since we could never relate, *i.e.* discover the relations between, the two systems.

[1] Mr. Russell may object to the instance, on the ground that it implies that the objects of sight are bodies, but the argument will apply to any instance which Russell may prefer.

But even on this view of a space—which is plainly untenable, since no space can consist of whatever it is that occupies it—we should still have no right to speak of two spaces and two worlds, since our inability to discover the relation would not imply its non-existence, and we should in fact know that they were spatially related, even though we knew that we could never discover the character of this relation in detail. The truth is—and I venture to press the point—that the mere assumption that what is given in sense exists *independently* of being so given is enough to destroy the possibility of maintaining that the realities so given to two different people belong to worlds distinct from one another and from a world of science supposed to be incapable of being given in sense to any one. Once this independence is granted, there is absolutely *no* reason for maintaining that the groups of realities forming the so-called distinct worlds are anything but parts of one world, *i.e.* one system. Hence even Mr. Russell's formulation of his starting-point, in that it refers to what can never be a sense-datum to two people at once as a *sensibile* is fatal to the very conclusion which he desires.

To save Mr. Russell's view from inconsistency there is one and only one meaning to be given to 'private to me'. It must mean 'dependent on me,'[1] *i.e.* such that if I had not existed, it would not have existed, the dependence consisting in the various species of being 'given in sense,' *viz.* being seen, heard, etc., by me. Given this meaning, though not otherwise, the phrases, 'a private world' and 'a private space' have a perfectly good meaning. For suppose, as Mr. Russell does, that what we see is appearances, and not bodies; suppose, as Mr. Russell does not but as he should, that an appearance, as being necessarily an appearance to some one, is dependent on that some one; and suppose, as Mr. Russell has to do, that the spatial relations which we perceive are not relations between bodies but relations between appearances. Suppose also that there are bodies related in space, independent of our perception. We should then have to think of the spatial relations which I perceived, as belonging to a space different (1) to that to which belonged the spatial relations which some one else perceived, and (2) to that to which belonged the spatial relations between bodies. For the spatially related appearances to me, as dependent on me, the spatially related appearances to

[1] I am aware of, but see no force in, Mr. Russell's objection to the phrase. *Cf.* L., 74.

some one else, as dependent on him, and the spatially related bodies, as independent of both of us, would form separate systems, *i.e.* systems such that a reality belonging to one of them could not belong to either of the others. For the unity of each of the first two systems would lie in a characteristic incapable of being shared by the other or by the third, *viz.* dependence on a certain given individual.

Since, then, the doctrine of 'private worlds' is plainly vital to Mr. Russell, it must be assumed that 'private to me' means dependent on me, this being the only meaning which affords any justification for the phrase 'a private world' at all. Several things now become clear. (1) The appearances which are not appearances to me, which Mr. Russell introduces into 'my private world' apparently to give it a completeness without which it is difficult to describe it as a world have no right to be there, being really of the nature of putty inserted to fill up the cracks in the view. (2) Mr. Russell's notion of 'a perspective', *i.e.* of a private world without the assumption of a percipient, involves a contradiction. (3) The view which really occasions Mr. Russell's doctrine of private spaces is that usually known as subjective idealism, *i.e.* the view that what I perceive is always something dependent on me for its existence. (4) Mr. Russell's view, stripped of inconsistency, is that what I see consists of appearances and spatial relations between them, that these appearances, and therefore also the spatial relations between them, are dependent on me, and that for this reason, the realities which I see form a spatial world distinct from that seen by others and from the independent spatial world of science.

Now is there any truth in this doctrine of private worlds each containing a private space? Surely none whatever.

In the first place the realities which are capable of being spatially related are not appearances to some one but bodies. No one thinks, or could think, that an appearance to me could be, say, to the left of, or near to, another. The thing is impossible. To realise this, we have only to face the issue directly, when not under the obsession of some theory. Such statements are as obviously untrue as to speak, as Mr. Russell does, of the *appearance* of a penny as circular, or of a certain *appearance* as blue.[1] The impossibility is in no way removed if we substitute for an appearance a patch of colour and say with Mr. Russell: 'This patch of red is to the left of that patch of blue'.[2] Moreover, Mr. Russell's doctrine is

[1] S., 13; L., 79. The italics are mine. [2] S., 2.

general and applies also to smells, tastes, sounds and to whatever he supposes to be the objects of touch. Yet is there any one who, so long as he does not confuse such realities with their physical conditions, really thinks that they are or can be spatially related *inter se?*

In the second place we should ask whether there is any sense whatever in speaking of a plurality of spaces, apart from asking the subsequent question whether, if there is, there would be any sense in speaking of some of them as private. Mr. Russell seems so much under the dominion of his theory that what we perceive is private to us that he appears not even to have *asked* himself the question. Here again, if we face the issue on its merits, without having some theory to vindicate, we are bound to admit that it is simply not sense to speak of a plurality of spaces at all, and that there neither is nor could be any thought corresponding to the phrase, since we cannot think impossibilities. And if we look for the reason, we find it in that given by Kant, in spite of, or perhaps rather in consequence of, his 'psychological innocence'.[1] "We can represent to ourselves only one space, and if we speak of many spaces we mean thereby only parts of one and the same unique space."[2] There seems no more to be said. Here at least is something which any one who faces the issue must find indubitable. If we try to think of different spaces, we only find ourselves thinking of parts of the one space, and if we try to think of systems of bodies in different spaces, we only find ourselves thinking of the different systems as in different parts of the one space. I would venture to suggest to Mr. Russell that he should extend a statement which he makes with reference to doubt so as to make it apply to thought. "Verbal doubt may occur when what is nominally being doubted is not really in our thoughts, and only words are actually present to our minds."[3]

In the third place, if there cannot be such a thing as *a* space, in distinction from the one all-embracing space, there cannot of course be such a thing as a *private* space. But is there any way in which the term 'private' can legitimately be used in connexion with space? Since there is no such thing as *a* space, the term can be applicable, if at all, only to the particular spaces which form the parts of the one space. And if some particular space were said to be private to me, it is clear from the only meaning which can be attached to 'private to me,' that the particular space meant must be a

[1] S., 7. [2] Kant, *Cr. of Pure Reason*, B., 39. [3] L., 71.

space which I am perceiving and that the statement must mean that this space is dependent on me as the percipient of it.[1] But unfortunately this statement would be inconsistent with what we know to be the nature of a particular space. For it would imply that particular parts of space perceived in succession exist only in succession, whereas a particular space—as is obvious when we reflect on its nature—implies the co-existence of adjacent spaces, and these the co-existence of others, and so on *ad infinitum*. If space exists at all, as we know it does, and as Mr. Russell himself implies when he places spatial relations among sense-data, and so among indubitable realities,[2] it exists all together.

In view of these considerations it is plain that we cannot account for Mr. Russell's coming to speak of private spaces at all, unless we regard him as really, though contrary to his nominal doctrine, under the obsession of the subjective idealist's view of perception.

But Mr. Russell's impossibilities are not exhausted. For, according to him, each so-called private space is a plurality, consisting of several spaces. 'The first thing to notice is that different senses have different spaces. The space of sight is quite different from the space of touch; it is only in experience in infancy that we learn to correlate them. . . . The one space into which both kinds of sensation fit is an intellectual construction, not a datum. And besides touch, there are other kinds of sensation which give other though less important spaces; these have also to be fitted into the one space by means of experienced correlations. . . .' 'And as in the case of others, so here: the one all-embracing space, though convenient as a way of speaking, need not be supposed really to exist. . . . The one space may turn out to be valid as a logical construction, compounded of the several spaces, but there is no good reason to assume its independent metaphysical reality.'[3]

In endeavouring to follow this passage, we may, I think, fairly be excused for finding it difficult to keep our heads.

[1] Mr. Russell may deny that we perceive particular spaces. But since he expressly includes certain spatial relations among our sense-data, he ought to allow that we perceive at least that portion of space within which the realities are which are thus related, *e.g.* as near together. To think that we could perceive the relations without perceiving the space within which they are is as impossible as to think that we can think of a geometrical line except as the boundary of a geometrical surface, or of a geometrical surface except as the boundary of a portion of space.

[2] L., 71-72.

[3] L., 113. *Cf.* S., 12. This statement throws a vivid light upon Mr. Russell's faith in the new method.

What does Mr. Russell *mean* by saying that the space of sight and the space of touch are quite different? Apparently that what he calls sight sensations, A, B, C. . . . and touch sensations, P, Q, R, . . . form separate spatially related systems, *i.e.* spatially related systems such that a sensation belonging to the one cannot be spatially related to a sensation belonging to the other. This interpretation is confirmed by his speaking of correlating the one space with the other, *i.e.*, presumably, finding some correspondence between the sensations which belong to each. But in *this* case there can be no reason for thinking of A, B, C, . . . P, Q, R, . . . as separate systems. If they were sensations given to different individuals, they could be regarded as forming separate systems, because dependent on different individuals, but *ex hypothesi* what dependence there is is dependence on the same individual, and there is no more reason for holding that A, *e.g.*, is spatially related to B than for holding that it is spatially related to P. Again it is maintained that the two kinds of sensation *fit into* one space, *viz.* the space which one passage[1] describes as the one private space and which the context of the passage quoted[2] inconsistently represents as the one all-embracing space of science. But if they fit into one space, how can they belong to two different spaces, since as so fitting they must together form *one* spatially related system?[3] It looks as though Mr. Russell when he speaks of the spaces as different is thinking of his spatially related sensations of the various senses as if they were apprehended in water-tight compartments,[4] as they would be if each sense belonged to a different person. But if this were the case, plainly they could never be fitted together spatially or otherwise[5]

[1] S., 12. [2] L., 113.

[3] It may be noted that while Mr. Russell's phrase 'correlating the space of sight *with* the space of touch' (L., 113) implies that these spaces are different, his phrase 'correlating these spaces *into* one space, implies that they are the same'.

[4] *Cf.* Theaetetus, 184.

[5] The following statement is significant: "In later life, when we see an object within reach, we know how to touch it, and more or less what it will feel like; if we touch an object with our eyes shut, we know where we should have to look for it, and more or less what it would look like." (L., 113). It suggests that the only correlation which corresponds to Mr. Russell's language is that which obviously exists between *seeing* a body and *touching* it. If I see a thing in a particular way, I know that by doing certain things, I can subsequently have the experience which consists in touching it in a particular way. If this suggestion is correct, Mr Russell's fundamental mistake is that he is treating a non-spatial relation between two perceptions as if it were a spatial relation between the realities perceived.

Before proceeding, it will be well to raise an incidental but important issue. It may be contended that Mr. Russell's sense-data, though they may not be spatially related, must be temporally related, and that consequently even if his view that there are private spaces is untenable, it is possible to justify his view that there are private times distinct from one another and from the non-private time of common sense and science. For since my sense-data depend on me, as hearing, or seeing them, etc., as the case may be, the temporal relations which I directly apprehend between them will also depend on me. Hence, it may be said, the succession of my sense-data belongs to a private time different from the private time of others and the non-private time of science.

Here, however, the premises do not justify the conclusion. No doubt, even if we do not accept Mr. Russell's view that the objects of perception are necessarily sense-data and so private to me, we must admit that there are certain successions which can fairly be described as private to me, *viz.* the successions of my thoughts and feelings, which depend on me and which I alone can directly apprehend by an act of reflection. But the privateness of these successions does not in the least imply that the time during which they occur is private to me. Whatever Mr. Russell may say, a given time is not the same as the sequence of events which take place in it, and we think, and can only think, of the time during which a particular succession of thoughts and feelings occurs as part of the one time of which every one is aware and which forms the time of science. No doubt if we were directly aware *only* of successions private to ourselves and somehow learned that others were directly aware of successions private to them, we could not discover the particular temporal relations between our successions and theirs; we could not discover, *e.g.*, which came first. Yet we should think, and should have to think, of them all as taking place during parts, though possibly different parts, of the one time. In fact, however, what enables us to discover the temporal relations between our private successions and those of others is that some of the successions of which we are directly aware are *not* private to, *i.e.* dependent on, us, such as the successive movements of a boat—to take Kant's instance—and that we are also directly aware of these successions as contemporaneous with certain private successions. For then, assuming a corresponding apprehension in some one else, we can infer—though, of course, only with limited exactness—either from his testimony or from observation of his bodily movements, that certain processes are taking place in his

private world contemporaneously with what we know to be going on in ours.[1]

It may also be noted that it is the refusal of Mr. Russell and of those who think with him to allow or even to entertain the idea that in the cases of sight and touch we have a direct apprehension of bodies which explains their view of the precariousness of our belief in the existence of other minds and their denial that two minds can possibly perceive one and the same thing. Once it is granted that we see bodies, which, as such, must exist independently of our seeing them, there is no difficulty in allowing (1) that when we see a body like our own, there is related to it a mind in a way similar to that in which our mind is related to our body—whatever that may be, and (2) that two minds may perceive the same thing. To both admissions alike the obstacle lies simply in the theory that what we see can only be an appearance, which, as such, must be dependent on ourselves.

We have now to consider Mr. Russell's account of what he at first calls the space of perspectives and afterwards also refers to as physical space.[2] According to Mr. Russell, besides the spaces private to individuals, there is another space, the space of perspectives. If we ask, 'What are the realities spatially related within this space?' we get as the answer, 'Perspectives,' *i.e.* the private worlds of individuals, without their percipients. Here we seem to reach almost the limit of paradox. These perspectives, *i.e.* systems of appearances which are appearances to no one, each, according to Mr. Russell's own statement, contain their own space. They are therefore infinite. We thus get the amaz-

[1] Mr. Russell may object (1) that since the ether vibrations which form part of the physical conditions of sight take a certain time, we cannot possibly *perceive* a physical change, since, if we did, our perception of the change would occur later than the change by some period however small; and (2) that, in consequence, any apprehension of a private succession as contemporaneous with a non-private succession must be impossible—at best there only being possible an erroneous belief. But (1) I do not see how the fact that, *e.g.*, an eclipse of one of Jupiter's satellites takes place before I see it in a telescope shows that I am not seeing the eclipse; and (2) although before I become aware of the velocity of light, I shall be mistaken as to the exact time at which the eclipse occurred relatively to my perception, the knowledge in question enables me to correct the mistake.

[2] Mr. Russell, in S., 14, distinguishes them, apparently because he considers a space to consist of the realities related within it. But his statements about perspectives and bodies imply that they are related within the same space (*E.g.*, "We have seen that we can assign to a physical thing a place in the perspective space." (S., 15).

ing result that a number of systems of realities, each spatially infinite, are at finite distances from one another. This result Mr. Russell will be seen frequently to express in so many words, if in reading Mr. Russell we substitute for 'perspective' his definition of it. Thus Mr. Russell speaks of placing on one straight line all the perspectives in which the appearance of a certain penny is circular. Mr. Russell may rejoin that he has only said that in perspective space one whole private world *counts as* a point, or at least as a spatial unit. But (1) what could be meant by saying that a spatially infinite world *counts as* a point? Surely it is only an attempt to evade the difficulty by a word. We may, in certain cases, be justified in treating a thing as if it were different to what we know it to be; in calculating the attraction of one planetary system on another, we may rightly treat or count each as if it were a single body. But it is certain that we are not entitled to treat something spatially infinite as if it had no spatial magnitude at all. (2) Mr. Russell himself speaks of explaining how the different *perspectives* are ordered in one space, and refers to single perspectives as the *elements* of perspective space.[1] (3) Mr. Russell's own summary of his view is decisive. 'The world which we have so far constructed is a world of six dimensions, since it is a three-dimensional series of perspectives, each of which is itself three-dimensional.' No doubt 'a world of six dimensions' is, to adapt Mr. Russell's phrase, mere 'verbal thought,' if the phrase means what it says. But if we are to find *some* thought underlying the statement it can only be that the realities related within the three-dimensional perspective space are themselves three dimensional. And, if so, these realities cannot be points and should not be treated as if they were.

Moreover even if Mr. Russell's perspectives were points or could even be treated as points, there would only be another fatal difficulty. For it is Mr. Russell's view that the space of geometry and physics, and therefore, presumably, perspective space consists of an infinite number of points.[2] And in spite of all that Mr. Russell may say about continuity and infinite numbers, it is obvious to any one who does not allow his mind to be confused by the pontifical statements of some mathematicians, when they abandon mathematics and take to reflecting about the ἀρχαί of mathematics, that space does not consist of points.

These, however, are not the only impossibilities of Mr.

[1] S., 89. [2] L., 113.

Russell's view. He is also committed to holding that a given appearance must be in three different places, one in private space, and two in perspective space. (1) 'The place at which a sense-datum is, is a place in private space.'[1] (2) As part of a private world, an appearance must be at the place in perspective space '*from* which the sensibile [*i.e.* the appearance] appears'. (3) Since 'a thing' is defined as the class of its appearances, an appearance must be at that place in perspective space which is described as 'the place where the thing is' of which the appearance is an appearance.

This being Mr. Russell's view of the nature of perspective space, what reasons does Mr. Russell give for its existence? *Prima facie* there would seem to be a difficulty. For if what the individual perceives is a space private to himself, then even granting that he somehow manages to become aware of the private spaces of others, what could lead him even to suspect the existence of any other space? And even if there were a process such as Mr. Russell describes of discovering particular spatial relations within this space, it would have to presuppose the knowledge that there was such a space, just as the search for a coin presupposes the knowledge that there is such a thing as space in which the coin is to be looked for. And when we look for a reason in the long passage quoted we find not only that absolutely none is given but that the process described throughout *presupposes* knowledge of the existence of 'perspective' space. Again in the *Lectures* Mr. Russell says of 'perspective' space—inconsistently with his view that it is a 'construction'—"No one can perceive it, and if it is to be known, it can only be by inference".[2] But by inference from what? To this problem not even a clue is given.

But if the supposition of perspective space involves impossibilities and is backed by no reason, how has Mr. Russell come to speak of it at all? There must of course be some process which Mr. Russell is describing—and misdescribing. And to find it is easy, provided common sense is not regarded, as Mr. Russell seems to regard it, as a species of lunacy. Grant, as we all think when not philosophising, and as Mr. Russell—to judge from his habitual use of ordinary language when stating the truth—often thinks even when he is philosophising, that what we see is bodies. Grant also as a consequence of the nature of space and of the fact that our seeing is physically conditioned, (1) that

[1] S., 12. '*The*' of course implies that it is in no other place.
[2] L., 86.

bodies must present different appearances to us when seen in different positions relatively to our body, and (2) that we necessarily see bodies as if from a certain point determined with reference to our bodies—though without actually being there, since in that case our mind would be a body. Grant also that, however it has come about, we have become aware of certain bodies (including our own) in certain positions relatively to one another. Then there is no difficulty in allowing that when we remember the appearances which one of these bodies presented to us at certain moments, there may be a process by which we calculate what were the points relatively to that body from which, as it were, we saw it and where our body was at these moments relatively to that body, and again that by a similar process we can calculate what is the point relatively to the given body from which, as it were, we should have to see it, and where our body would have to be, if it was to present to us a given appearance.[1]

The possibility of conducting this process presupposes knowledge none of which from Mr. Russell's standpoint ought to be presupposed, *viz.* knowledge of the existence (1) of what Mr. Russell calls the one all-embracing space of science, *i.e.* space, (2) of certain bodies in it, and (3) of certain spatial relations between them. On the other hand it does not presuppose belief in any of the impossibilities which Mr. Russell's account of it would require us to believe in. It does not imply that we think of private worlds or private spaces[2] or that we think of these as, though infinite, spatially related in another space.

If, as we are driven to hold, the process just described is that of which Mr. Russell is really thinking when he professes to describe the 'construction' of 'perspective' space, we can easily understand Mr. Russell's meaning when he speaks of 'perspective' space as a construction and the real nature of his procedure. For suppose (1), as Mr. Russell does, that 'perspective' space, *i.e.* really space, consists of an infinity of points. Suppose (2), in accordance with this, that 'perspective' space can be regarded as consisting of the points which form the points of view from which, as it were, we see bodies. Suppose (3) that the perceptions correspond-

[1] The fact that we can only do this approximately, does not, of course, affect the argument; for the process throughout presupposes that we know that there are these points and positions, even if we cannot discover precisely which they are.

[2] The nearest approach to this is the implication that we remember certain of our perceptions.

ing to the various points of view can be regarded as *counting* as these points, and so as standing in the spatial relations in which the points stand. Suppose (4) that we ought to substitute for these perceptions Mr. Russell's 'perspectives', *i.e.* certain groups of appearances without a percipient. Then, on these suppositions, the process just described will be precisely the construction which Mr. Russell wants. It will consist in finding assemblages of sensibilia which, though known not to be 'perspective' space, will 'count' as that space, *i.e.* will have the same properties. The original problem, therefore, will be solved. We shall have given some justification for our belief in the existence of the non-sense-given space of science, without inferring its existence on the strength of some *a priori* principle, and we shall have done so by finding combinations of sense-given realities which will have the same properties as if they were the space of science.

If, as must be the case, this is what Mr. Russell's view really comes to, only two comments are needed. In the first place not one of the four suppositions just stated is anything but obviously untrue. In the second place the process which Mr. Russell is describing, and, I venture to think, misdescribing, throughout presupposes knowledge of the existence of certain bodies independent of the percipient and of certain spatial relations between them. Without this knowledge, there is no process left to describe. Hence if Mr. Russell's account of the 'construction' of 'perspective' space has any fact corresponding to it at all, it presupposes the truth of the very beliefs of common sense which it is his main object to supplant.

We have now to turn to Mr. Russell's account of 'a thing'. Here Mr. Russell's paradoxes reach their climax. The surprising nature of his account is focussed in his definition of 'a thing'. 'A thing' of common sense, *i.e.* really a body, is again and again defined as the class, or the whole class, of its appearances. *Prima facie* the definition is exposed to two fatal objections. In the first place the word 'its' suggests that the definition is not merely covertly but explicitly a definition of 'a thing' in terms of itself. In the second place common sense would object that we do not *mean* by 'a thing,' *i.e.* 'a body,' the class of its appearances or even any class of appearances, and that therefore at best Mr. Russell can only be defining something else which he manages to refer to as 'a thing' by giving the phrase a new and artificial meaning of his own.

Now these difficulties can be met. Thus in one place

Mr. Russell in defining 'a thing' substitutes for 'its' a phrase which does not refer to the 'thing'. 'Thus a thing may be defined as a certain series of appearances connected with each other by continuity and by certain causal laws.'[1] Again Mr. Russell's account of 'construction' shows that 'defining' is one of the many terms to which he gives a new and peculiar meaning. It shows that when, *e.g.*, Mr. Russell speaks of '*defining*' 'a thing,' he does not mean, as we ordinarily should, formulating the fundamental nature of the realities referred to as 'things,' but formulating the nature of certain assemblages or groups of other realities which will have the same properties as things and which therefore can be considered substitutes for them.[2] Hence Mr. Russell can fairly meet the objection that he does not really *define* 'a thing,' by urging that he has never professed to define a thing in the ordinary sense of 'define,' and that all he has done is to state the nature of another reality which will do as well, *i.e.* have the same properties.

These difficulties therefore can be set aside as due to obscurities of statement. But the question arises whether their place is not taken by difficulties and fatal difficulties of substance.[3] Thus it is involved in a 'definition,' in Mr. Russell's sense that if an X is defined as a certain group of realities, the group must have those properties of an X which common sense and science presupposes an X to have. And this is also involved in Mr. Russell's main doctrine. For after all what his view comes to is that though we are not entitled to speak of things and atoms, in the sense in which common sense and science speak of them, since such realities are essentially unverifiable, we can justify the retention of the language of common sense and science by finding groups of other and indubitable realities which will have the properties of the things and atoms of common

[1] L., 106.

[2] This peculiar and artificial use of the term 'define' explains what otherwise would be unintelligible, *viz.* Mr. Russell's habit of speaking as though we can overcome certain difficulties about certain realities, such as changes and movements, by a new definition of them. Of course if 'defining a change in a particular way' means formulating the nature of something which is not a change, but which will act as a substitute for a change, a difficulty which can be raised about a change may not apply to the reality, not a change, which is represented as a substitute for it. Yet the difficulty is only postponed, since if the substitute for a change escapes the difficulty just because it is not a change, it cannot be expected to act as a substitute for it. Mr. Russell does not seem to have asked himself whether it is *possible* to define such realities as changes, movements, or bodies.

[3] For the difficulty which takes the place of the first, see pp. 175, 176.

sense and science, and then making the terms 'thing' and 'atom' refer to these. Hence it is involved in Mr. Russell's view that in any common sense or scientific statement, we are justified in substituting for the phrase 'a thing' or 'an atom' Mr. Russell's so-called definition of a thing or an atom, and for the phrase for a species of thing or atom, *e.g.* an orange or a hydrogen atom, Mr. Russell's definition with the addition of some differentia. In fact it may be said to be Mr. Russell's chief object to vindicate common sense and scientific language in this way. Hence it would not satisfy Mr. Russell's view to hold that in order to state what is true, we must discard the terms 'thing' and 'atom' altogether and express the facts of experience in substantially Berkeleian language—as Mr. Russell does when he says *e.g.*, "All that is really known is that the visual appearance in question, together with touch, will lead to certain sensations'.[1] On Mr. Russell's view, in order to state what is true, we can retain the terms 'thing' and 'atom'—and for that matter the other terms which Mr. Russell 'defines'—*provided that* we give these terms new meanings, *viz.* those given in Mr. Russell's definitions. Thus the common-sense statement, 'My pen dropped upon the floor,' will be true if, though only if, it means 'A certain class of appearance dropped upon another class of appearances'. And 'Bodies move' will be true if, though only if, it means 'A certain classes of appearances move'. 'I see a chair' will be true if, though only if, it means 'I see a certain class of appearances some of which occurred in the past and others of which will occur in the future'. The fatal objection of course is whatever be the meaning which these statements ought to bear if they are to be true, the meaning which has thus to be assigned to them on Mr. Russell's view is one which renders them certainly false. In fact Mr. Russell's view is exposed to the familiar objection which Berkeley quotes against himself, though in a different form: 'After all, say you, it sounds very harsh to say, we eat and drink ideas, and are clothed with ideas.' If for 'ideas' there be substituted 'series of appearances,' this objection applies to Mr. Russell.

The objection may seem to fail from its very obviousness; and Mr. Russell would probably retort that his doctrine has not been interpreted fairly and that an instance of his own will supply the necessary correction. 'We say, for example, that things change gradually—sometimes very quickly, but not without passing through a continuous series of inter-

[1] L., 80.

mediate states. What this means[1] is that, given any sensible appearance, there will usually be, *if we watch*, a continuous series of appearances connected with the given one, leading on by imperceptible gradations to the new appearances which common sense regards as those of the same thing.'[2] But this really only succeeds in describing a perceived change of a body in Berkeleian language. There is no attempt to retain the language of common sense, by introducing the suggested change in the meaning of the term 'thing'. If Mr. Russell had done so, the 'proper' meaning would have run: 'A certain series of appearances changes gradually,' and the falsity of the statement would have been obvious. For a series of momentary events does not change and is not even identical with a change. As the despised Kant remarked,[3] coming into being and perishing are not changes of that which comes to be or perishes. Change is but a mode of existence, which follows on another mode of existence of the same object. Moreover not only does the whole drift of Mr. Russell's argument imply that he wants to justify the retention of the words 'things' and 'atoms,' but he practically says so. Thus after defining a thing as a certain series of aspects, he continues: 'Every thing will then proceed as before; whatever was verifiable is unchanged but our language is so interpreted as to avoid an unnecessary metaphysical assumption of permanence'.[4] And again he says: 'Thus we may lay down the following definition: *Things are those series of aspects which obey the laws of physics*'.[5] This *must* mean that it is true to say, *e.g.*, of certain series of aspects that action and reaction are equal and opposite or that they attract one another inversely as the square of the distance.

Mr. Russell may reply that words like 'attract' and 'action' should also be given new meanings. But if this process be fully carried out, we shall be left with nothing but language appropriate to Berkeley, and with no justification for retaining *any* of the language of common sense and science, and, in that case, unless I have entirely misunderstood Mr. Russell, his whole mission will have gone. In fact, if Mr. Russell were to persist in this contention, it would be difficult to see any substantial difference between his view and that of Hume, except that Hume did realise

[1] I take it that 'means' means 'must mean, if the statement is to be true'.

[2] L., 106.

[3] *Critique of Pure Reason*, B., 230.

[4] L., 107.

[5] L., 110.

that on his own view there was no room left for the language of common sense and science at all and that Mr. Russell would not.

We have not, however, exhausted Mr. Russell's 'paradoxes'. It is difficult enough to regard a certain series of appearances as a substitute for a 'thing' or body of common sense, if the appearances in question are supposed to belong to one person's perspective, *i.e.* private world without a percipient. But Mr. Russell's class or series of appearances which is to take the place of a body include appearances belonging to different private worlds without percipients. Some of them therefore are in one private space and some are in others. What unity therefore can they be expected to have? And not only this, but every appearance which goes to make up the substitute for a body is, as I have urged before, in three different spaces. Hence the assemblage of realities which is to replace the thing and which ought, on Mr. Russell's view, to be what we really see is a curiously confused and confusing assemblage.

We may now endeavour to discover the real nature of the problem with which Mr. Russell is confronted. To do so, we must first analyse what we really mean when in common with Mr. Russell's 'common sense,' we use such terms as 'appearances,' 'things,' and 'appearances of things' and what is the thought which underlies our use of them. Considering that two of Mr. Russell's main objects are to find true 'interpretations' of 'things' and 'appearances of one thing,' nothing is more remarkable than the absence of any such analysis. There is, of course, a full account of what we *ought* to mean by such terms, this being what Mr. Russell calls the true interpretation of them. But this is no substitute. For if a false view is to be replaced by a true one, the precise nature of the false view must, of course, first be determined. Moreover 'appearances' is, I think, the one fundamental term taken from ordinary speech of which Mr. Russell neither offers nor attempts to offer a new and peculiar definition of his own. Presumably, therefore, when Mr. Russell uses it as part of his own philosophical vocabulary, he means it to be understood in its ordinary sense. Hence—and especially since it is really the most fundamental term in Mr. Russell's own philosophical vocabulary — we should expect Mr. Russell to think it important to ascertain what we, as common-sense beings, do mean and imply by it.

Now if we reflect, three things become clear. In the first place, we use the phrase 'an appearance' as a relative, and

a doubly relative, term. We mean by it not merely an appearance presented to some one, but an appearance of, or presented by, a thing. In the second place, we mean here by 'a thing' a body. So much is this so, that if some one did not understand what was meant by 'a body,' he could not possibly be brought to understand what was meant by 'an appearance'. Hence if Mr. Russell were to urge, as I think that from his own standpoint he should, that as we do not and cannot have experience of a body, the phrase, 'a body,' as used by common sense, cannot have a meaning, he would be exposed to an obvious *argumentum ad hominem, viz.*, that in using, and allowing others to use, the phrase, 'an appearance,' he is implicitly allowing that not only it but the phrase to which it is relative is significant. Hence also if, as Mr. Russell thinks, we are somehow directly aware of what are called appearances, we must also be directly aware of what are called bodies, since the apprehension of the one must be inseparable from that of the other. In the third place, when we speak—as Mr. Russell does also—of the appearance presented by a thing, we imply not only that we are seeing something, but that the something seen is the thing, *i.e.* the body, and not the appearance. This becomes obvious when we reflect that if we thought, as Mr. Russell thinks, that what we see is the appearance, the statement that the thing *presented* a certain appearance to us would lose all meaning. It would be, of course, irrelevant to object that we *ought* not to imply this on the ground that we do not see bodies; and, in any case, it can, I think, be successfully made out that even in the case of illusions what we see is a body. Thus if I am said to be looking at myself in a glass, there is no difficulty in allowing that what I see is my face, and not an image on the glass, though no doubt it presents an appearance similar to that which my face would present to some one else, if I was behind the glass and he was where I am now.

It is also clear that we know perfectly well what we mean when we speak of something as a body and also what we mean when we speak of something as an appearance presented by that body. Again it is clear that we mean by 'a body' and 'an appearance presented by that body,' realities which, however closely related they may be, are different in kind from one another and from everything else. We do not think it possible to express the nature of the appearances presented by bodies in terms of bodies or *vice versa;* nor do we think it possible to express the nature of either in terms of any other realities.

It is also clear that we mean by 'appearances of *one* thing' appearances presented by *one and the same* body. And if we allow, as we must, that by 'an appearance' we mean the appearance presented by a body, the phrase 'appearances of *one* thing presents no speculative difficulty whatever. For since it is involved in what we mean by a body that what is so designated is no momentary reality, there is no difficulty in allowing that certain bodies presenting certain appearances on different occasions may turn out to be the same.

It is also clear that when we speak of certain appearances as appearances of one thing, we imply that the appearances have a certain unity. This again presents no speculative difficulty. For since we mean by 'the appearances of one thing' the appearances presented by one and the same body, the appearances so designated must, as appearances presented by the same body, have a unity. We can thus find intelligible a statement of Mr. Russell's which I venture to think Mr. Russell, on his own principles, cannot, *viz.* 'Every aspect[1] of a thing is a member of two different classes of aspects, namely: (1) the various aspects of the thing, of which at most one appears in any perspective; (2) the perspective of which the given aspect is a member".[2] For if 'an appearance' means not merely an appearance presented to some one but also an appearance presented by a body, we can think of appearances as forming groups or unities in two ways. We can think of the appearances presented to a given person as forming a unity, whether they are presented by the same body or not; and we can think of the appearances presented by a given body as forming a unity, whether they are presented to the same person or not.

Further, if we grant, as we must, that the phrases 'an appearance,' 'a thing,' and 'appearances of one thing' have these meanings and implications, two other facts become clear. (1) On the one hand not only do we never speak of a process by which we advance from a knowledge of appearances to a knowledge of things but to speak thus would be nonsense. For if we are aware of appearances at all, we are *eo ipso* aware of them as appearances of bodies and are therefore also aware of bodies. (2) On the other hand not only do we speak of a process by which we advance from a knowledge of certain appearances presented

[1] Mr. Russell throughout appears to use 'aspects' as a synonym for appearances.

[2] L., 92.

by things to a knowledge of them as appearances of one thing but it is sense to do so. We mean a process by which we come to learn that the appearances presented by what at first we do not know not to be different bodies are appearances presented by one and the same body, by discovering that the bodies which presented the appearances are really one and the same. And it is easy to find actual instances within our experience. I can ask, 'Is the fountain pen which I now see the same as the fountain pen which I saw yesterday?' Suppose, however, I did not know that the bodies seen were fountain pens or even pens. I might ask myself, 'Is the body which presents certain appearances to me now the same body as that which presented a certain appearance to me yesterday?' Similarly if I am watching a river, without knowing whether there is a current, I could ask myself, 'Are the various portions of water which I see at different moments the same?' And if my level of knowledge were lower, I could ask myself, 'Is the body which presents certain appearances to me at this moment identical with the body which presented a certain appearance to me at some previous moment?' And such questions are often answered. Moreover when we answer such a question, we do so by deciding that the bodies which present the appearances are the same. Further we cannot decide that the bodies are the same simply by reference to the appearances which they present. For it is involved in the very meaning of the phrases 'a body' and 'an appearance presented by a body' that two bodies may present precisely similar appearances without being identical. And, in fact, to decide the question we appeal, and have to appeal, to our belief in certain empirically derived causal laws,[1] and to certain *a priori* knowledge which underlies these beliefs, such as our knowledge that bodies, or at least the constituent bodies of which they are made up, are indestructible, that if a body is first at one place and then at another, it must have moved through the intervening space, and that all physical processes exhibit causal necessity. It is for such reasons, for instance, that I cannot doubt my conviction that the pen which I have been continuously looking at is one pen and not several, each one of which in turn has suddenly taken the place of another. Again the existence of such processes involves no speculative difficulty. For since we mean by 'an appearance' an appearance pre-

[1] As Hume realised (*Treatise*, i., 3, 2) and as Mr. Russell seems to feel (L., 109).

sented by a body, there is no difficulty in allowing the existence of a process by which we learn that certain appearances are appearances of the same body. There would only be difficulty, if by 'an appearance' we meant—as we do not—something which was just an appearance and was not an appearance of anything. And since it is implied that it is not the appearances but the bodies which we see, there is no difficulty in allowing that we can decide that certain appearances are appearances presented by the same body by deciding that the bodies which present them are really the same.

Mr. Russell would, of course, deny that there *can* be such processes, since it is not bodies but appearances which we see. But if Mr. Russell persists in this denial, then in consistency he ought, when stating what he takes to be the truth, not only to abandon—as he does—the use of the term 'body' but also to abandon—as he does not—the use of the term 'appearance'. If Mr. Russell maintains that common sense is not justified in speaking of things, *i.e.* bodies, he is bound also to maintain that neither common sense nor he himself is justified in speaking of appearances. Yet Mr. Russell cannot possibly afford to abandon the term 'appearances' for, as I hope to be able to show,[1] it is only in terms of the 'appearances of one thing' of common sense that Mr. Russell succeeds in 'defining' 'a thing' at all.

We may now consider, in the light of this analysis, the nature of the problem with which Mr. Russell is confronted when he seeks to 'define' 'a thing' of common sense. Mr. Russell, of course, uses the phrase 'an appearance' as an absolute term, *i.e.* as a phrase standing for a reality which has a nature in itself, *i.e.* without reference to something else. It stands neither for an appearance to some one, nor for an appearance of a body. This is no accident of terminology; for the usage corresponds to his real view, which comes out, *e.g.* when he speaks of our 'seeing two finitely different appearances,'[2] and again when he speaks of our 'starting from a world of helter-skelter sense-data'.[3]

Now, in the first place, to be successful in 'defining' a thing, Mr. Russell has to find a characteristic of certain appearances which will render them such that, as a group, they, though not a body, will have the properties of a body. But from the preceding analysis it is clear that this task must be impossible. Since it is involved in the very nature of the realities referred to as appearances and of those referred to

[1] P. 181. [2] L., 108. [3] L., 107.

as bodies that they are different in kind, the nature of neither being reducible to that of the other, then, however closely appearances may be related to bodies, no appearance and no group of appearances can possibly form a substitute for a body, in the sense of having the same properties. Hence *whatever* be the characteristic which Mr. Russell selects to distinguish the appearances which, as a group, are to be a substitute for a body, he is found to fail. The mere fact that the group of appearances selected is *a* group of appearances,—apart from what constitutes it a group of a particular sort is enough to destroy its claim to be a substitute for a body.

In the second place there is another side to Mr. Russell's task. He has not merely to find a characteristic of certain appearances which will render them such that, as a group, they will have the properties of a body. He has also to show that the characteristic which he selects will render the group identical with a group which common sense would describe as appearances of one thing or body. For the thing of common sense, for which it is Mr. Russell's object to provide a substitute, is the thing of which, according to common sense, certain appearances are the appearances. Mr. Russell grants that common sense is right in speaking of certain appearances but wants to find a substitute for the thing of which they are the appearances. Now if the characteristic on which Mr. Russell fixes give rise to a group of appearances different from these, and forming simply another group, there will be no reason for supposing that this group has anything whatever to do with the thing of common sense and hence none for supposing that it can possibly act as a substitute for this thing. In any case, whether Mr. Russell is bound to hold this view or not, he does hold it.[1]

[1] That Mr. Russell must hold this view can be seen in another way. Mr. Russell has not only to give the 'true interpretation' of 'a thing' of common sense; he has also to give the 'true interpretation' of the common-sense phrase 'appearances of *one* thing'. But there must be this difference. While the 'interpretation' of 'a thing' is to consist in finding a substitute for it in some other reality, the 'interpretation' of 'appearances of one thing' must consist in describing the same reality as that to which common sense refers but in describing it differently. For while in the case of 'things' common sense is speaking and thinking of realities of which it has no right to speak and think, in the case of appearances this is not so. What is the matter with common sense here is that in describing certain appearances as appearances of one thing it is misdescribing them, since, to be truly described, they must be described without reference to a body, a body being something of which we have no right to speak. Hence it is implied that the appearances of one thing, in Mr. Russell's sense of the appearances which, as a group, are a sub-

'A thing,' he says, 'will be defined as a certain series of aspects, namely those which would commonly be said to be of the thing.'[1] Hence Mr. Russell has to show that the distinguishing characteristic of certain appearances which renders them a thing, in his sense of 'a thing' will render them identical with the appearances of one thing of common sense.

But can Mr. Russell possibly succeed in doing this? 'The appearance of one thing' of common-sense *means* the appearances presented by one and the same body. The appearances so referred to, therefore, form a group the unity of which arises from the fact that the bodies presenting the appearances are one and the same. Now Mr. Russell's task is really to find as a characteristic which renders those same appearances a unity one which the appearances possess in themselves, *i.e.* apart from any relation not merely to one and the same body but even to any body at all. But, even if it were possible to think of appearances without thinking of them as appearances of a body, how could any characteristic possessed by certain of them, *so considered*, possibly render them a group or unity such that they would also necessarily have the unity of being appearances presented by one and the same body? There *could* be no such characteristic. For the appearances meant when we or common-sense speak of appearances of one thing, derive their unity solely from the fact that the bodies which present the appearances are one and the same. This, I venture to think, is the true inwardness of what must otherwise be considered Mr. Russell's strange definition of a thing as the class of *its* appearances. Whether Mr. Russell is aware of it or not, this definition is really a tacit confession that what distinguishes, and what alone distinguishes, the appearances which as a group are Mr. Russell's 'thing,' is the fact that they are the appearances of one and the same thing, of common-sense. And it may be noted that this fact not only explains how Mr. Russell comes to 'define' a 'thing' in the class of *its* appearances, but frees the definition from the charge of circularity. For the 'its' really refers not, as the language suggests, to what Mr. Russell is formulating the nature of, *viz.* his substitute for 'a thing' of common-sense, but to the 'thing' of common-sense itself. Again the same admission is implicit in Mr. Russell's definition of a thing as a certain series of aspects,

stitute for a thing are identical with the appearances which common sense describes as appearances of one thing, *i.e.* one body.

[1] L., 107.

namely, those which would commonly be said to be of the thing.[1] In any case it is plain that the appearances of which Mr. Russell is really thinking when he defines a thing, in his sense of 'a thing', are the appearances presented by one and the same body. Since then their unity comes simply from the fact that the bodies which present them are one and the same, it does not matter what he represents as their distinguishing characteristic when he tries to distinguish them without reference to the thing or body of common-sense. Whether Mr. Russell represents it as consisting in obedience to the laws of physics or as consisting in anything else, his account is bound to fail.[2]

Further, if we grant, as we must, that, whatever Mr. Russell may say, he really only succeeds in distinguishing even to himself the appearances which are to be the substitute for 'a thing' of common sense by thinking of them as the appearances presented by one and the same thing, we see that Mr. Russell, in stating the true view which is to supersede that of common sense, has to presuppose the truth of the very view which it is his object to supersede. For there cannot be appearances presented by one and the same thing, unless there is such a thing as one and the same thing or body, and therefore also unless there are such things as bodies. Since then Mr. Russell's substitute for a thing is really reducible to the appearances presented by one and the same body, to speak of the existence of this substitute is to imply the reality of the very thing for which it is to be a substitute, *viz.* a thing or body. Hence whether Mr. Russell's substitute for 'a body' of common sense will do as a substitute for it or not, the very terms in which this substitute has to be described presuppose the existence of bodies, and consequently Mr. Russell's view that there are these substitutes covertly implies that common sense is speaking and thinking truly when it speaks and thinks of bodies. The point—and I venture to press its importance—may be expressed slightly differently by saying that, whether the view which Mr. Russell takes to be the true view which is to re-

[1] L., 107. The italics are mine.

[2] It may now be noted that the group of appearances which form Mr. Russell's substitute for 'a thing,' cannot even be a *class* of appearances, as Mr. Russell's definition implies that it is. When we speak of certain realities, *e.g.* Tom, Dick, Harry, etc., as forming a class, *e.g.* the class of men, we imply that they are particulars which form a unity in virtue of there being particulars of one and the same *universal*, *e.g.* manness. But the appearances which are appearances of one and the same thing are particulars which derive what unity they have from their relation to another *particular*, *viz.* the thing of which they are the appearances.

place that of common sense be true or not, it is impossible even to *state* it without falling back on the language of common sense and therefore without presupposing the truth of the thought which underlies this language.

Another consequence emerges as soon as we realise the real nature of Mr. Russell's substitute for a body. It appears that when Mr. Russell professes to 'define' '*a* thing', *i.e.* to formulate the nature of a substitute for it, what he actually 'defines' is not '*a* thing or body' but '*one and the same* thing or body'. For that for which the appearances of one thing are a substitute, if they are a substitute for anything, is not '*a* body' of common sense but '*one and the same* body of common sense', *viz.* that one body which on different occasions presents the various appearances. Thus Mr. Russell never succeeds in offering what it is his primary object to offer, *viz.* a definition, in his sense of 'definition', of '*a thing*', but where he is under the impression that he is doing so, he is really only offering a definition of '*one* and the same thing'.

If we ask ourselves how Mr. Russell is thus unwittingly taken in, we shall see, I think, that Mr. Russell never faces two of the most important problems which he has to face. Mr. Russell has to 'define' a thing not merely in order to exhibit the nature of his substitute for it but also because from his standpoint there must be a process by which we advance from a mere knowledge of appearances to a knowledge of 'things' in his sense of things and this process will imply as a pre-condition the definition of a thing, in Mr. Russell's sense of 'definition'. This process Mr. Russell introduces thus: 'Starting from a world of helter-skelter sense-data, we wish to collect them into series, each of which can be regarded as consisting of the successive appearances of one "thing".'[1] Now the terms which Mr. Russell here uses to describe the result of this process show that the common-sense process of which this must be the 'true interpretation' is the process already referred to by which we learn not that certain appearances but that certain appearances *presented by bodies* are appearances presented by one and the same body. It cannot be a process by which we learn that certain *appearances* are appearances of one body. For not only neither is there nor can there be any such process, but if there were supposed to be such a process, it would have to be considered two processes and not one. For how could we be supposed to discover that certain appearances were appearances of *one* body, unless we

[1] L., 107.

were supposed to have already discovered by a prior and different process that they were each an appearance of *a* body? Hence if we bear in mind that Mr. Russell's process, if it is to be conducted, avowedly requires that definition of Mr. Russell's which is ostensibly the definition of *a* thing, it becomes obvious that Mr. Russell is thinking of the process by which we learn that certain appearances *presented by bodies* are appearances presented by *one and the same* body as if it were a process by which we discover that an *appearance* is an appearance presented by *a* body.[1] It is this which explains why when Mr. Russell is 'defining' *one* body, what he thinks he is doing is to define *a* body. And it shows that, whatever Mr. Russell may think he is doing, he does not face two problems the solution of which is from his standpoint vital. He is bound (1) to be able to make out that there is a common-sense process by which, starting by thinking of appearances just as appearances, we come to think of them as appearances of bodies, and, having done so, he is bound (2) to give the 'true interpretation' of this process, this interpretation requiring a 'definition,' in Mr. Russell's sense, of *a* thing. Mr. Russell does not do either and he does not do so because when he thinks he is doing so he is really doing something else.

I venture to think that if Mr. Russell were to address himself to these two tasks, he could not possibly achieve them, simply because there is, and can be, no such process, and therefore, also, no process to interpret. I venture also to think that—with the exception of the fact that Mr. Russell's own account of the truth is throughout only intelligible to us at all because we possess the common-sense view and that it really, though covertly, presupposes the truth of that view—the impossibility of making out the existence of any such common-sense process constitutes the greatest difficulty with which Mr. Russell is confronted. The difficulty may be put in a slightly different form by asking Mr. Russell to ask himself the question which, as has often been remarked, Berkeley did not, and Hume did, ask himself and see the importance of asking. I think that Mr. Russell especially should ask it, because, as it seems to me, in spite of all the difference of language, Mr. Russell has more affinity with Hume than with any other philosopher. The question is simple. If Mr. Russell is right, if his sense-data—miscalled appearances—are all that we are directly aware of in percep-

[1] Kant seems to me to make what is substantially the same mistake. *Cf.* my *Kant's Theory of Knowledge*, p. 182.

tion, if, in consequence, there is no ground whatever for the common-sense belief that there are such things as bodies—and if, consequently, all the common-sense beliefs implied in the use of such phrases as 'the appearances presented by a body' or 'the different appearances presented by the same body' are mere illusions, then how did these illusions and the corresponding language arise? This question, as Hume saw, *must* be answered, and it is surely obvious that if Mr. Russell were to undertake this task, he would inevitably share Hume's failure to achieve it.[1]

[1] Since the above was written, Mr. Russell has told me (1) that he means his definitions to be understood as literally definitions in the ordinary sense, and (2) that while, of course, he does not believe that there are such things as bodies, his 'constructions' are only fictions. I confess that in reading the *Lowell Lectures* several passages (*e.g.* pp. 93, 113) suggested to me that Mr. Russell held his 'constructions' to be fictions, but I thought that Mr. Russell could not possibly mean this. Now, however, I am more than ever at a loss to see any plausibility in his view. If Mr. Russell's definitions are meant to be really definitions, how can any of them be anything but transparently false, and when common-sense statements, as ordinarily understood, are expressly held to be false on the ground that the realities to which they refer do not exist, how can it be thought possible to give them a true meaning by making them refer to fictions? So far as I can see, Mr. Russell's views have their origin in the hypnotic influence of pseudo-geometries, which has led to an empiricism, *i.e.* a distrust of thought, so extreme, that what is practically his own distinction between 'verbal' and 'real' thought (*cf.* p. 163) has ceased to have any importance for him. I venture to suggest to Mr. Russell that he should for a time forego the exercise of his ingenuity in the higher regions of 'logical manipulation', and—with the distinction between 'verbal' and 'real' thought in mind—consider whether *all* the presuppositions of the 'new logic' may not be fundamentally false, whether in fact the 'new logic' may not be after all only an attempt to escape the consequences of old errors—errors which some at any rate had been disposed of once for all in the history of philosophy—by the addition of others which though new are none the less gratuitous.

II.—LOTZE'S RELATION TO IDEALISM.

By E. E. Thomas.

Part I.

It may be said that the questions with which modern philosophy concerns itself most move around one great problem, namely, that dealing with the nature of the unity of reality. That the world is a unity is what no one does, or can, seriously deny; even the pluralist cannot hold that the ultimate members of his pluralistic universe are so far disconnected and separate as to be in no respect whatsoever related to one another. To hold that this is the case would be to cut away the grounds for maintaining that the world is a many. Before we can say that things are a many these things must be comparable in some respect or another, and to be comparable they must all find a place in some unity, the principle of which is involved in the comparison. The great question which divides philosophy is as to whether this unity of the world is that of an order, which is prior to the relationships of souls, or that of a relationship of souls determining an order, to which it is therefore prior. Now it is undoubtedly true that there is order, system, or structure in the world. The task of the various sciences consists in discovering and in giving expression to the nature of this order. But to hold that there is order in the world does not involve the holding of the further view that the fundamental unity of the world is one of order. It may be held that order is derived; that it is created in and through the medium of a relationship of minds, which constitutes the more fundamental unity of reality. Lotze's philosophy shows, in a very marked way, the conflict between these two points of view. The development of Post-Kantian Idealism had gone to show that the order in the world possesses a necessity and universality which demand that this order shall possess a self-subsistence of its own, giving it a determining power over all that is and that takes place. At the same time, Idealism had failed to show how this order could take individual minds into itself, and

this failure seemed to point to the view that individual minds and their unity are a something as fundamental and ultimate in the constitution of the world as is order or system. Thus the task of any philosophy following upon Idealism is that of showing how the necessity of order and the plurality of individuals are connected, and it is around this problem that the philosophy of Lotze turns. It cannot be said that Lotze has established any definite conclusions with regard to it, but the whole detail of his philosophy is penetrated through and through with the conflict of opposing views, and in this it serves to clear the ground for reconstruction.

The first thing we have to do is to examine the Idealist view that the fundamental unity of the world is one of order or system. Idealism first took its rise in a theory of knowledge and sought to pass from this to a theory as to the nature of being; from an examination of the principles of knowledge it sought to determine the relation between knowledge and life, between knowledge and reality; it made the principles which underlie knowledge identical with those which underlie reality. With the Idealists knowledge was the determining factor in reality; they held that it is only through knowledge that the structure of reality comes to exist; hence for them, reality was something penetrated through and through with knowledge, and knowledge was a something holding within itself, and through which alone could exist, an ultimate or completed reality. The development of Idealism consists in showing how knowledge gives to reality a structure which is universal and necessary.

Hume made the presupposition that knowledge can only exist if it reveals to us connexions of content penetrating into, and being constitutive of, the matter of our experience; that further, such a system must be expressed by thought in the form of judgments possessing universality and necessity. But he had also shown that any attempt to make connexions between the elements of our experience factual or psychological, *i.e.* something existing in the same way as an actual content of our experience, fails altogether to establish any real system as existing within our experience. If we take any such connexion and try to determine of what it really consists, we find ourselves with nothing in our hands beyond the bare contents of the separate entities supposed to be connected together. From this he drew

the conclusion that experience can never give us a knowledge of reality. The answer of Idealism to the Scepticism of Hume consisted in finding a connexion within reality which is not factual or psychological but logical; and its great problem is that of showing how logical connexions can penetrate into, and be constitutive of, the reality which is given in perceptual experience.

Leibnitz indeed had already maintained that experience possesses a logical aspect. He saw that if we take certain principles which we use in mathematics, and reason in reference to experience on the basis of these principles, we arrive at universal and necessary truth about this experience. The universality and necessity which experience gains through being brought into relation with mathematical principles consists in this: first that it subjects itself to calculation on the part of the mind which knows it; secondly that this calculation is guided by the ideas of infinity, absolute equality, etc., these ideas being supplied by reason; thirdly that reason as consisting of these ideas is a sphere of self-subsistent reality possessing universality and necessity in its own right. But he further maintained that the connexion of reason with the content of experience is accidental and external, and also that this connexion does not render experience a structural whole. The first of these positions he established by an argument which runs as follows: While it is possible to distinguish two moments in any object, namely the material which is ordered, and the mathematical which is order, and while we can see that both of these are involved in any actual constructive activity of our experiencing mind, still they do not belong inherently together. If we take any material content we find that in whatever particular mathematical proportion we divide it, we shall never exhaust it, for we shall never arrive at its ultimate parts. In order to do this we should have to divide it to infinity, when we should obtain something which cannot be divided further; this something would be content, and only content, and mathematical ideas would not be applicable to it. Again, taking the mathematical moment we find that it extends itself out into a sphere into which content does not enter. In order to perform any mathematical operation upon any content we have to make use of certain conceptions; if we want to add A to B we have to suppose that both A and B remain identical with themselves. But in any experience of content, *e.g.* that of the colour on the wall, the content never for a single instant possesses identity

of being, for it runs into an infinity of change in which no identity rests. Thus the principle of identity does not belong to content and has no inherent connexion with it.

Leibnitz further widened the rift between these two moments of experience by giving to each an ultimate reality in its own right, independent of experience, in which both come together. He held that the content existing at the basis of the material existence which we experience is made up of an infinity of ultimate reals, each of which has a life of its own into which it is impossible for us to enter; that the ideas or truths of reason, from their nature, cannot be made dependent upon anything else, and hence must constitute an independent and self-subsistent reality.

But Leibnitz really failed in this attempt to keep the mathematical and the merely material moments of experience separate. He maintained that the subject matter of mathematics is ideal and therefore cannot belong to sense; he saw, however, that if mathematical ideas had no connexion with sense then it would be impossible that we should ever apprehend them. In order to become aware of such ideas we must undertake mathematical processes like those of addition, division, etc., and these processes cannot be carried out except in reference to things. Again, he found it impossible to keep sense as a something finding existence apart from, and independent of, the principles of totality which are involved in the application of mathematics to sensible objects. He saw that if mathematical ideas are not applied to sense then we cannot have an experience of sensible things, for it is through the separation of things from one another, through the numbering of them, the setting of boundaries between them that we are able to have an experience of objects. Two quotations taken from him will serve to convince us of this. He writes: "the ideas which are said to come from more than one sense, like those of space, figure, motion, rest, are rather from common sense, that is to say, from the mind itself, for they are ideas of the pure understanding, but related to externality, and which the senses make us perceive".[1] Again, "It seems that the senses cannot convince us of the *existence* of sensible things without the aid of reason".[2]

The second position, namely, that the connexion between reason and sense does not render experience a structural

[1] *New Essays*, English translation, by Langley, p. 129.
[2] *Ibid.*, p. 130.

whole, Leibnitz sought to establish by maintaining, that what we do when we apply mathematical ideas to sense, is to analyse the power of the mind in reference to its dealings with the content of experience. If we divide two lines into inches and compare them, then the process of analysis involved in the comparison is really an analysis of the power of the mind which has been exercised, first, in creating certain standards of measurement, and secondly, in applying these standards a certain number of times to each of the lines. The standards of measurement are not derived from sense and do not belong to sense; the application of these standards to sense does not alter the fundamental nature of the content of sense, nor set this content into any system of relations different from those in which, as sense content, it already stands. In exact measurement, inches, *e.g.* must be considered as absolutely equal and are therefore the same in nature as that which is infinitely small. The idea of the infinitely small, however, is not derived from sense but from reason. Again, when any contents of sense are measured and these measurements compared in calculation, the calculation only reveals to us the equality or difference of the number of times the mind can exercise its power of applying certain standards of measurement to the different contents.

But by making mathematical principles extraneous to the sense content involved in experience, and by further maintaining that the application of these principles to this content only results in giving us a knowledge of the way in which the mind can use them, Leibnitz failed to give to the actual content of experience that universality and necessity without which truth, as centring in experience, is impossible. The first task falling to Kant was of showing that mathematical principles are involved in sense, and that through their union with sense, experience is a structural whole possessing universality and necessity. In doing this, however, he developed a theory of the nature of the logical, which is much wider than that held by Leibnitz. Leibnitz held that the logical is that which is given by reason; he further maintained that the ideas involved in mathematical operations are logical, since they are given by reason. The logical came to be a mere body of ideas. True, they possessed a character of inherent necessity and universal validity, through which their logical nature and their source in reason became revealed to us; but this logical nature could not extend itself into systematic wholeness, and could not enter into, and give structural form to, the content of experience.

Kant tried to show how the logical did this. He held that calculation, through which mathematical ideas are applied to sense, is not purely analytical, and therefore possessing no determinate or structural nature of its own; on the contrary it is carried out through the medium of a process possessing a definite character and involving principles of structure or totality. Further, because guided by principles of totality, this process makes that, in reference to which it is carried out, a systematic whole. In the case of the formula $2+3=5$, we see that the calculation is only possible through the idea of addition. This idea is not a mere definition apprehended through reason; it has a content drawn from a process possessing a definite character. This process is of such a nature that, when it is carried out in relation to sense, a structural whole is constructed. When I take things and add them it is not enough to say that I build up a mere aggregate, and that this aggregate is no real whole. It certainly is a whole of a certain kind, for its various items are external to one another, and such externality is different from that principle of wholeness whereby the parts dissolve into one another's being. Now it is clear from what has been said above that calculation cannot be carried out except in reference to that which is created by the processes involved in the calculation itself. Thus the application of mathematics to experience is that through which the content of sense is formed into objects of experience. But an experience which is not of objects cannot be said to be experience at all. The principles, therefore, through which things are calculated, are principles which render experience possible. This is the meaning which Kant gives to the logical.

Kant now goes further and maintains that all the conditions under which alone experience can be of objects, constitute the form of experience. The first and fundamental condition of all experience is that of the unity of self-consciousness. Experience *is* because it is the experience of something by somebody. One side of this relation is often expressed by saying that experience is the revelation of reality, or that it claims to be true, or that it has an objective reference; on the other hand, reality is revealed through the medium of consciousness, which distinguishes itself from that which is revealed to it, and thus constitutes itself a subject or self-consciousness standing in relation to objects. This principle of self-consciousness resolves itself into various principles, which are all connected with one another in a peculiar non-temporal, non-factual way. Given the one

principle, then the others are necessarily involved in it. Self-consciousness must be single. In order to be able to say 'Myself' I must think of myself or experience myself as a one who remains the same throughout the awareness which I have of myself. The unity of self-consciousness involves the unity of objective existence; this unity can only come to being if existence is a whole made such by the presence within it of principles of unity or totality; principles of totality involve a plurality which has to be unified; and this plurality involves the existence of sense content. Such connexion is what is meant by a logical as distinct from a psychological or factual connexion. Thus these principles carry a universality and necessity within themselves as being the logical presuppositions of all experience whatsoever. The question now arises as to how these presuppositions can be the form of experience. Now it is undoubtedly true that experience must be of objects standing in relation to a subject. It therefore possesses a definite nature or character. We may call this nature the form of experience, but at the same time we must be careful to note that it is not form in the sense of structure or system. Strictly speaking the term form is only applicable to structure. Self-consciousness, the subject-object relation, and the unity of the world, are not principles binding fact to fact; they are involved in the nature of an experience in which fact is already bound to fact by principles such as those of cause and effect, substance and attribute, etc. It is these latter principles which constitute form as structure. While, however, these two kinds of principles must be distinguished, it is impossible to separate them; for they mutually implicate one another. Self-consciousness manifests itself in structure, and structure reveals itself in self-consciousness. Both moments are therefore presuppositions of experience. On account of this, the definite principles of structure involved in our world of actual experience are considered to be the same in nature as the principles of self-consciousness, unity in the objects experienced, etc. All of these are held to constitute a unity which is the same throughout the whole of its nature, and which is called the logical form of experience. It is logical because the principles rendering structure possible are logical, and form because structure is form. Thus Kant tried to make the fundamental unity of reality one of order, system, or structure, this structure being logical in the sense that it follows from the nature of knowledge or experience as such, in which alone objective reality can rest.

It is, however, impossible to pass logically from self-consciousness to a definite structure. Structure may be of many different kinds; it may be mathematical, historical, or purposeful; and each of these may be exclusive of the others. Hence, while the principles involved in any one of these are necessary to the definite structure which they constitute, still it cannot be held that, as possessing this or that nature, they are presuppositions of, or are logically involved in, structure as such. To maintain then, as Kant did, that presuppositions of experience are form because they give to experience a definite structure, is incorrect. The principles of structure involved in our actual experience are determined by the concrete nature of the sense content of which they are formative. The further development of Idealism depended upon the recognition of this objection, which we have brought against Kant. Idealism came to distinguish between the matter and form of experience in such a way that form came to mean the formal aspect of knowledge, and matter its content; it considered this content as being constituted by structure and that of which it is the structure. Thus the presuppositions of experience came to be identified with the logical forms through which knowledge is expressed. Further, Idealism tried to show that these presuppositions and the definite structure of experience do not stand in a line of logical development, but that they are moments in a unity more ultimate than any given by logic. It was Fichte who set Idealism on this line of development.

Fichte held that the first condition of experience cannot be a presupposition of mere form; it must be a presupposition of the indivisible unity of form and matter, the term form standing for the formal aspect of knowledge. The moment of form must be the condition of all possible forms, and itself not conditioned by any form; and the moment of content must be the condition of all possible content, and itself not conditioned by any content. Fichte finds this unity of form and content in the principle of self-consciousness. This principle, he maintains, holds within itself two moments existing in indissoluble union; these moments are those of subject and object, or of the 'I' and the 'Not-I'. In order to be aware of itself consciousness must have a content which is different from itself. In knowledge man knows *something*, namely, an actual A. Further he *knows* it by maintaining that it is itself, *i.e.*, by setting A over against A and asserting that both are identical. Logic deals with mere forms under which we know, such as A is A, A is B if it

is C, etc., and not with the content of that which is known. The science of knowledge, which for Fichte is the first thing in philosophy, deals with the necessary union of form and content, or of the *how* we know with the *what* we know. When I say 'A is A' that means only that A is identical with itself *if* it exists. In order that form and content shall be united it has to be shown that A exists, and that its existence is necessarily involved in the form of the statement A is A. This can only be done where the A is the knower or self-consciousness itself; for if self-consciousness or the I does not exist then its knowledge of itself, which is involved in the statement 'I am I,' could never exist. Now this awareness of itself on the part of self-consciousness, which guarantees or necessarily carries with it the existence of itself, constitutes the reflective side of our experience; from it issue conditions of the form of experience, conditions which are developed through the reflective process of logical reasoning. Thus formal principles connect themselves with the 'I' moment of self-consciousness. The content of experience, however, connects itself with the 'Not-I' moment of self-consciousness. Now admit, as Fichte did, that all form is derived from the first presupposition of form, namely, the principle of identity; and admit further that all particular content is derived from, or contained in, a principle of objectivity, which is united with the principle of form in the unity of self-consciousness; then no matter how each develops apart from the other, the necessity of the unity of the particular form derivable from the first presupposition of form, with the plurality of content belonging to objectivity, is guaranteed.

The great weakness of Fichte's philosophy lay in the fact that he made the principle of reflexion supreme, and sought to derive from it the objective content of existence. If the fact of the 'I's' existence follows of necessity from the fact of its knowledge of itself, and if this knowledge of itse f is confined to the mere formal principle of identity, then the fact of existence must be determined by the mere form of its knowledge of itself. If this is the case, then, it would also seem that the fact, and therefore the content, of any existence whatsoever, is altogether dependent upon the logical form under which it is known. The invalidity of this position, however, can be seen at once if we take any logical form and try to derive from it any pronouncement upon actual existence. The logical form 'A is A,' when expressed as 'I am I,' may pronounce upon the actual

existence of self-consciousness; but it cannot pronounce upon the existence of anything else. A subordinate logical principle such as 'If A is B it is C,' cannot pronounce upon the existence, or the nature of the content, which finds being within self-consciousness. It may be maintained, however, that such principles as 'A is the cause of B' connect themselves with the principle of identity, and are derivable from it; and that these principles do tell us something of the nature of actual existence. Now it is undoubtedly true that we know that A cannot be the cause of B unless both A and B possess a certain commensurability, which allows the causal relation to move through it; but this commensurability of nature between the members of a causal relation is derived from the actual content and plurality of experience, and not from any logical validity which may exist in reference to this particularity and plurality. Further, the causal principle cannot tell us anything as to the actual existence of the things standing in this relation.

Hegel saw that if the principles of reflexion are to carry a necessity belonging to themselves over to a structural content, then they must not be abstract or merely reflective; they must be concrete, and objectivity or content must enter into, and be constitutive of, them. He held that if we try to analyse our experience back to its first presuppositions we shall find that a self-consciousness formed through the unity of form and content is the very first condition of knowledge, that is, of experience of reality; we shall, further, find that the first principle of self-consciousness is not that of identity, as Fichte had held, but of Being; it is self-conscious Being that constitutes the first principle through which the reality revealed in our experience can be known. If, however, we take the mere notion of Being we shall never arrive at an experience in which self-consciousness lives; self-consciousness only exists in concrete Being. Fichte had maintained that the 'I' could not exist except through the 'Not-I'. He had expressed this by saying that the 'I' goes out of itself and posits a 'Not-I' as an objective content over against which it can act, and in this activity return to itself with the fulness of concrete Being. It was extremely difficult to understand the nature of this activity; it could not be a process in time; for a mere 'I' without any content whatsoever could not first exist, and from its contentlessness produce a realm of content through which it afterwards came to move. If, on the other hand, the activity of the 'I' is

logical, then it is wrongly directed; for it moves from mere reflexion without content, to content. We could understand concrete existence becoming reflective, abstract, and relatively contentless, but the reflective and contentless becoming concrete and full, unless it acted in relation to a content already existing apart from itself, is unintelligible. Thus, neither through a temporal process nor through a logical process can the 'I' of self-consciousness construct from itself a concrete reality. Self-consciousness and fulness of concrete reality involve one another; self-consciousness exists in, and only in, fulness of reality, and fulness of reality is self-consciousness. While Kant had maintained that the unity of reality is one of order and had made a distinction between order and that which is ordered, Hegel maintains that reality exhausts itself in being an order or structure systematised down to the minutest detail. In this theory of Hegel's Idealism comes to its fullest development.

There is contained in Idealism, however, a tendency which leads to Anti-Idealistic views. It consists in the failure to make order self-subsistent and inclusive of all that is. Kant had to recognise the existence of individual minds, and he had to ask whether it is order that determines their relation one to another. For him, these individual minds consisted of individual wills; we not only experience and understand things, but we will them. Just as the experience of reality involves a series of presuppositions, which are connected together in a certain way, so willing in relation to reality involves a series of presuppositions of a like kind. The principles of duty and of an objective 'ought to be' stand in the same relation to one another in willing as the principles of self-consciousness and of the unity of objective existence in understanding. Further, presupposed in duty and in an objective 'ought to be' is the principle of freedom. The will cannot act from duty unless it is free from all external determination. The inclinations of man are a something from which he may, and does, act; but in doing so he is not acting from duty nor from anything lying within the will itself, but from something lying outside the will in the world of objective nature.

Now if will as such is free, it must be that active will is free; active will, however, exists as the wills of persons; hence it follows that persons, in willing, are free. The principles binding together objects of experience do not apply to them; therefore we cannot know them in their

deepest being. They are, Kant maintains, things in themselves. Again, such wills cannot determine one another; for in that case some of them, as being thus determined, would not be free; hence the imperative of duty to treat all persons, not as instruments, but as ends in themselves. At this point, however, a difficulty arises. The ethical life is not lived in itself and by itself, apart from the objects of experience and the inclinations of the flesh; on the contrary, it has to derive its content from these. It follows from this that the things of nature, when brought into relation with the will, have a double determination; on the one hand they are determined by the categories of the understanding, and on the other hand by the categories of freedom. As determined by freedom they reach out into a world of things in themselves. In the *Kritik of Judgment* Kant set himself the task of uniting freedom and necessity. He found that if nature, or the objects of nature, are to be determined through freedom, then some measure of purpose, *i.e.* relation to an 'ought to be,' must enter into their being. He further held that the unity of freedom and necessity is expressed by us in judgments of feeling, which we pronounce upon nature; and that this unity of order and purpose is what we call the Beautiful.

The question that now arises is as to whether the Beautiful is itself an order. If it is an order, then it is difficult to understand how freedom can be subordinate to it. In maintaining that the will is free, and that the Categorical Imperative is a principle involved in this freedom, Kant recognised that persons are not related to one another through the medium of structure. According to him principles of structure are different from, and external to, that of which they are the structure; the nature of sense content constitutes an element of unreason in a world bound down by a structure involved in reason. Thus wills or persons which are related to one another through system would determine one another externally, and would not be free. But if the Beautiful is not an order, it is difficult to understand how the logical order of the world is subordinate to it. When Beauty is made to consist wholly of feeling, then the unity through feeling, of freedom and necessity, leads inevitably to mysticism, to the view that in feeling we are at one with the whole depth of reality. Such mysticism, however, excludes rather than includes knowledge.

Thus Kant failed to make the fundamental unity of reality one of order; individual souls will not reduce themselves to

being members of a system. True, Kant drew a distinction between objective reality and the reality belonging to souls as things in themselves. But such a distinction does not exclude souls from ultimate reality, which must include within itself both souls and things.

In Hegel's philosophy this anti-Idealist tendency is carried still further. It develops through a failure on the part of Hegel to make self-subsistent the form which is constitutive of reality. His views make it clear that this form has a double determination. On the one hand, reality is revealed to finite beings through a process which isolates form; whereas, on the other hand, reality exists in the medium of form. But when form is isolated by the intelligence, the principles of which it consists stand differently related to one another from what they do when this form is constitutive of reality. As it comes to us reality does not possess fulness of being; our experience does not contain within itself completeness of self-consciousness. On the contrary, it can and does exist as relatively incomplete, chaotic, unformed, and a something in which consciousness rather than self-consciousness centres. The process of experience is one in which this relatively incomplete experience comes to attain completeness, and in its completeness reveals an objective reality to the self-consciousness which thereby comes into being. This process is a reflective one. Starting from the most fundamental and comprehensive principle of existence, it proceeds logically until it has laid bare a system of principles through the medium of which the whole of reality, as revealed in experience, can be grasped as a single whole by the intelligence. Thus reflexion first isolates the most comprehensive and abstract principles, and moves through these to the more determinate. Reality, however, does not move in this way; it does not move through Being to Non-Being, and through the unity of these to Becoming; it is Being, Non-Being, and all the further determinations, at one and the same time. But if reality thus contains all these principles at once, it is difficult to see how they are related to one another within reality. In knowledge they are logically related to one another; each principle is held apart, while at the same time it is recognised that we must pass from the more concrete to the more abstract. In ultimate reality the more concrete includes the more abstract. Yet the term "inclusion" does not reveal to us the real relationship in which these moments stand one to another. Again, if we say that the more concrete *is* the more abstract,

we really deny that reality is constituted by the definite and different forms which our knowledge of reality reveals to us. Thus the form through the medium of which ultimate reality exists is only knowable to us in a way which distorts its real nature.

From such a position as this it is not far to the further position, that all reality is determined by principles, whose nature is dependent upon the fact that through them finite beings come to knowledge. If principles of form, in the way in which they determine the nature of ultimate reality, are unknowable, then knowledge and the reality given in it come to be thought of as identical; the principles involved in knowledge are the principles constitutive of reality. Again, if these principles depend upon the knowing subjects being finite individuals, then the nature of these individuals and of the relations in which they stand to one another, determine, and are prior to, the form of reality. A further stage in the development of this view is reached by Hegel when he seeks to show that the reconstruction of our experience, through the medium of thought, leads us to the contemplation of a realm of Absolute existence. He maintains that our experience of reality consists of the contemplation of an Absolute, which will not contain us because we are finite, and therefore incomplete and imperfect, centres of consciousness. To maintain this, however, is to hold the view that the whole of reality is at the same time inclusive and non-inclusive of all that is. Hegel seeks to avoid this contradiction by taking up the view that the contemplation of the Absolute leads us into its life. In the reconstruction of our experience, through the medium of thought, we arrive at fulness of being as belonging to the objects of experience; this fulness of being, however, is taken to mean existence within the Absolute, on the part of that which possesses it. We know ourselves as centres of consciousness through which the content of experience is given, and in reconstructed experience we ourselves come to fulness and perfection of being. Hegel, however, would maintain that we thereby lose our finiteness and are no longer individual persons. But if we lose our individuality, then for the same reason, things must also lose their individuality. Hence reconstructed experience could only reveal to us an Absolute possessing no concreteness of content and no definiteness of nature. Such an Absolute would be indistinguishable from nothingness. Thus individuals, as such, must find a place in ultimate reality.

So far we have not shown that ultimate reality is determined as to its form by the individual souls finding existence within it. To do this we must follow to their logical conclusion other aspects of Hegel's philosophy. He considers that it is through the world of persons that the Absolute is reached by us. He recognises it as an ultimate fact that reality is revealed in incomplete, finite, chaotic portions, and that these incomplete revelations give being to the individual mind, the finite person. The efforts of persons to make the content of their experience complete take place through a reconstructive process, which he calls Dialectic. This process, however, is logically involved in the psychological side of experience. Were there no incomplete revelations of reality it would not be necessary, in order to reach the Absolute, to go through a process which isolates Being and Non-Being, and afterwards combines the two in the conception of Becoming. Were there no dialectic process there would be no knowledge of the Absolute, and were there no such knowledge the Absolute would not exist. The logical order of the form of reality as known by us is dependent upon the fact that we are individual minds. Now reality is complete, self-conscious being, and must therefore have a complete knowledge of itself. But it cannot know itself except through the medium of a logical order which it imposes upon itself. To do this, however, it must be a finite mind standing in relation to other finite minds. Individual minds must be prior to the Absolute, and must determine the order or form in which it exists. Hegel would not have accepted such a conclusion as this. Nevertheless it represents a certain tendency in his thought.

The anti-Idealistic tendency finds a further development in the philosophy of Lotze. One of the great characteristics of Idealism is that it was a Monism dependent upon a certain view as to the place and function of thought in reality. The Idealists had maintained that reality rests in a necessity given by thought; that this necessity is that of an order which is the same for all individuals. Thus the unity of thought involved the unity of the world. On another theory as to the nature of thought and of its place and function in reality it would not be necessary to commence metaphysical inquiries with the view that reality exists in the unity of a world order; on the contrary, metaphysical inquiries might begin in Pluralism. This is where Lotze does begin them, and he is enabled to do so, because he holds a different view as to the nature

and function of thought, from that which had been held by the Idealists.

But his theory of thought, while being opposed to Idealism, was derived from a certain development within Idealism itself. This development contains three stages: first the assertion that the thought constitutive of reality is not the pure thought of the categories. Secondly, the putting forward of the view that complete or perfected experience is attained to through a reflective thought which follows upon immediate experience. Thirdly, the maintaining that reality is given in immediate experience. These positions, however, give rise to a new problem, namely, that as to the nature of the reality which is given in immediate experience, and the relation to it of reflective thought and of the experience reconstructed through such thought. It is this problem which constitutes the motive of Lotze's philosophy. The first two stages of the development mentioned above are contained in Kant's philosophy. Kant saw that reality is not given as a whole, nor in its completeness and perfection, but that it has to be attained to by the individual. This process of attaining to reality is carried out by the exercise of thought on the part of the individual. This thought, which Kant calls Judgment, consists of the subsuming of the particulars of sense under the universals of pure thought and it must therefore be both intellectual and sensuous. That is to say, pure thought, before it can be constitutive of reality, must become concrete by taking and holding within itself the particularity of sense. Sense, however, does not constitute a single order in the same way as pure thought; it is given in a multitude of finite subjects, and in each it is different from what it is in the others. Pure thought, therefore, in becoming concrete, must not only take account of this difference, but must hold it within the identity of universality. In doing this it must become dependent, to some extent, upon the nature of sense and upon the nature of the finite individual through whom sense is given. Kant, however, will not accept this position. The principles of judgment through which pure thought is applied to pure sense he calls the Schemata of the Categories. He maintains that these Schemata do not contain any elements of sense; they are the expression of methods involved in the nature of the categories to which they refer, and used by the pure imagination in order to introduce unity into the various determinations of sense so that they may be subsumed under the categories. But how, through the medium of the sche-

mata, and without taking sense into themselves, pure conceptions can be made to refer to sense, remains a mystery. And Kant recognises this. He says: "This schematism of our understanding, in its application to phenomena and to their pure form, is an art hidden away in the depths of the human soul, the secret of which we need not hope to drag forth to the light of day".[1]

Kant is now driven to the conclusion that this process of rendering thought concrete follows upon an experience of the merely particular. He refuses to accept this conclusion, but nevertheless, he cannot shut his eyes to it. He draws a distinction between two kinds of judgment; the determinant and the reflective. The determinant judgment is really the schematism of the Categories, for through it the particular is subsumed under the universal transcendental laws supplied by the understanding. The reflective judgment subsumes the particular under the laws through which the system of actual experience exists, *i.e.* the laws of nature. The determination of the relation between these two kinds of judgment constitutes one of the most difficult problems of Idealism, for it is the problem as to the relation between the presuppositions of all totality and the principles of the actual totality of experience. Now Kant held that the processes of thinking pure concepts and applying them to sense through the medium of the schematised categories, take place in the same moment and in the same act as those in which the content of sense is given to us. He maintained, on the other hand, that reflective judgment is exercised after sense has been given; he calls it reflective because it starts with the particular and seeks after, or reflects upon, laws, under which it can bring this particular. This goes to show that the concrete thought constitutive of reality is mediated in ideas attained to by a process of thought which is exercised after an imperfect and incomplete experience has been lived through. It cannot be said that Kant would have accepted a view of this kind, nor is it representative of the main trend of his thought.

The third stage in the development we are sketching is reached by Hegel. He saw that we do not have to go through a psychological process of thinking, and then through a psychological process of applying the results of our thinking to the content of our experience, before we can have experience at all. He held, however, that perfection of ex-

[1] *Transcendental Analytic*, chap. i., Watson's Translation, p. 87.

perience, and therefore fulness of reality, does not and cannot exist until immediate experience is reconstructed through the medium of reflective thought, or, as he calls it, thought as form. Thought, he maintains, is contained in this first experience which, later, comes to find reconstruction at our hands. He says, "The human content of consciousness which is grounded in thought does not appear first in the form of thought, but as feeling, apprehension, perception, forms which are to be distinguished from thought as form".[1] If this is the case then reflective thought can only lead to the reconstruction of a reality already given in immediate experience. Hegel recognises this when he says: "Often has the error held sway that reflection is the condition, nay, the only way, through which we can arrive at a representation of, and to a judgment as to the truth or falsity of, that which is eternal and true. Such a statement is the same as that which maintains that we cannot eat until we have gained for ourselves a knowledge of the chemical, botanical, or zoological properties of that which we eat."[2]

This development of Idealism involves the position that the thought involved in immediate experience does not rest in the presuppositions of all experience whatsoever, but in the concrete nature of sense which is constitutive of actual experience. If the reality given in immediate experience is determined in its nature by the individual through whom it is given, and in whom it lives, then we are led to an anti-Idealistic conclusion, for we are forced to adopt the view that whatever order there is in the world is dependent upon the relations in which individuals, as such, stand to one another. If, on the other hand, this reality is over-individual, then the thought involved in it must be over-individual, and we are led back to the spirit of Idealism, namely, the resting of all reality in our order which is prior to the relationships in which souls stand to one another. Lotze tries to hold both of these positions, and there is, therefore, a cleft in his philosophy.

We must turn to the view, adopted by Lotze, that the thought constitutive of experience is dependent upon the nature of sense. This thought he calls intuitive, and distinguishes it from abstract, reflective or discursive thought, which follows upon experience, and whose task is that of giving expression, through the medium of abstract ideas, to the thought involved in experience. Intuitive thought is that characteristic of perception through which a plurality of

[1] *Encyclopædie Einleitung*, p. 4. [2] *Ibid.*, pp. 5 and 6.

elements are gripped together in a single act, and in that act are seen to be members of a distinctive whole. This perception of totality, this recognition of a whole having a distinctive nature does not require to be made through the medium of ideas or concepts, but is something which takes place spontaneously. If, however, when we perceive anything, both the plurality of content and the principle of totality are given together in the self-same act, then it would seem that the activity which presents to us the perceptual world is a single, undivided activity. It cannot consist of two activities indissolubly fused together; nor can its product, namely, our experience of the perceptual world, consist of two elements, thought and sense, inseparably welded together. Since this is the case, how then, does there arise a distinction between thought and sense, between principles of unity and a plurality which is unified, between a subject which unifies and objects which are unified? The answer is that this distinction is a relative one. It is due to the fact that we are finite, incomplete minds, who have to gain our experience by means of a psychological process. In any completed experience, or in any experience which comes to us in a completed form, this distinction does not exist. When absorbed in listening to a piece of music the activities of perceiving and knowing, as exercised by a finite mind standing outside of, and gradually taking into itself, that which it knows, do not exist. This is brought about through the fact that the music does not come to us in pieces but forces itself upon us as a whole in its peculiar totality. There is no distinction between a knowing subject, on the one hand, and a known object, on the other; between a plurality of sounds and a way in which these sounds are connected together; but the whole mind is for the time being the piece of music, and the music itself is a distinctive totality, in which unity and plurality are lost in one another's being. It is in the psychological process of gaining knowledge piecemeal that this distinction arises. The mind is the living and active unity of its experiences. When anything new comes to be taken up into its life, this something new acts as a stimulus upon the already existing unity, causing it to give the new content a place in its life by uniting it in ways which the concrete and particular nature of the unity demands, with what already constitutes the life of the soul. This taking up of a new content into the already existing life of the soul presupposes an existing content which has already been brought to unity. In tracing the development of soul life we are continually thrown back upon an already unified content

on the basis of which all further additions to soul life are built. Hence there never could have been a time when there existed, on the one side a bare soul devoid of all sensational life, and on the other side a mass of un-unified sensations. The very crudest sensational life must already be a unity, and it is this unified sensational life, however simple the unity may be, that forms the first beginnings of soul life. In this way soul life grows, and in and through its growth raises within itself new forms of unity, which change the nature of the developing whole. For instance a child does not first know things as being in three dimensional space and as standing in causal relations with one another; it is only gradually, and with growing experience that he comes to do so. The forms of unity which he thus comes to apprehend are, in reality, the fuller nature of the concrete, individual experience. They are not mere forms, or principles of system, or structural skeletons of experience. The causal relation is no mere relation in which things may stand to one another; it is the concrete nature of the whole which is formed by certain things in certain aspects of their being, when these things are brought together. When this fuller nature is opposed to the new, unabsorbed content, that seeks to find a place within the life of the soul, then it appears as form or abstract order standing over against that which has not yet been absorbed in it. Further, the new, in-coming content changes the nature of the whole into which it enters, and it cannot be known whether or not the development of new experiences, such as those given through increasing social and historical knowledge, may not bring it about that the causal relation, and other relations of a like kind, may have no place in our experience.

This view of Lotze's is antagonistic to that put forward by the Idealists to the effect that the soul, in unifying its experiences, is drawing upon logical presuppositions involved in the very fact of experiencing at all; these presuppositions forming an eternal order to which the psychological subject stands in some kind of inexplicable relation. What this theory of Lotze's does, is to give expression to a view, developing within Idealism itself, that the unity of reality must be sought for in the concrete nature of the content of experience. But to seek for the unity of reality here is not necessarily antagonistic to the spirit and meaning of Idealism. What Idealism seeks to do is to find the unity of reality in a self-subsistent and necessary order independent of the individual, and yet manifesting itself in his experience. It may

be held, and indeed it is held by Lotze, that sense involves such an order through the fact that it possesses a concrete nature which is independent of the individual mind in which it lives. On the other hand, it may be maintained that the concrete nature of sense is determined by the nature of the individual through whom it is given, and that therefore, whatever order is involved in sense is dependent upon the relations in which such individuals stand to one another, these relations being prior and therefore not reducible to order. This again, is a theory contained in Lotze's philosophy. The following papers will concern themselves with the working out of these views.

III.—PLATO AND THE TRIPARTITE SOUL.

By J. L. Stocks.

§ 1. *Provenance.*—The most diligent search among the fragments of pre-Socratic thinkers fails to discover in them even the germ of anything that a modern would recognise as moral philosophy. A few common-sense precepts concerning the conduct of life, and a notion of cosmic justice as a principle preserving proportion and isonomy, preventing one of the warring natural forces from establishing a tyranny over the rest—that is pretty well all one can find to fill the empty place. If the searcher pins his faith to Diels, he will find even among the Pythagoreans hardly anything but an obscure allusion to a theory which represented virtue as a number. If he turns to the Sophists the field of ethical speculation is wider, but still not very wide. A clever rhetorical use of the antithesis between law and nature scarcely conceals the fact that we are moving still in the region of practical precept. If morality has become a problem at all, it is a problem of conduct not a problem of philosophy: the question is how to live not how to understand life. In Democritus Natorp has made a valiant attempt to discover an ethical theory of importance and influence: but though the fragments, such as they are—and many may be spurious—suggest that he had a theory, they are a long way from revealing what his theory was. And apart from that it remains to be proved (in spite of Natorp's efforts) that the writings of Democritus were known in Athens before the days of Aristotle. It is very doubtful wheher Plato ever read them, and Prof. Burnet asserts roundly that he did not.

No doubt there was little metaphysics, in the modern sense, and less logic, in Greek thought prior to Socrates; but the historians of philosophy give far more credit in these fields to the pioneer work of earlier thinkers than in the field of ethics. We have been told, almost too often, that if we divide the 'flux' of Heraclitus by the 'being' of Par-

menides the result will be the Platonic 'idea'. And the Eleatics are saluted, after Aristotle, as the founders of logic. But in ethics we are asked to begin with the Sophists, and to pass from them, after a short course of Socratic logic-chopping on the theme 'virtue is wisdom,' straight to the full-blown glory of Plato. Ethics, it seems, was the latest born of the children of philosophy. It had a worldly and philistine grandfather in the Sophists, and in Socrates a heroic but narrow-minded father. Of this unpromising ancestry was born in the fourth century B.C. in or near the Academy the Platonic ethics, to be the subject of genuine but rather hesitating admiration to generations of scholars and philosophers. Admiration hesitates because, though one hardly likes to say so when the ancestry is so well-attested, the child is surely no true Greek after all. The speech is prophetic and oracular; the doctrine is mystical and ascetic; there is an all-pervading consciousness that the human soul is not at home in this world and in this body, which could not have been engendered under the Greek sun. So the shadow of a bar sinister, of a taint of colour in the blood, falls across the cradle. And that shadow has always remained. Aristotle it is true did something to remove it; but after him Stoic, Christian, and neo-platonist let the Orient loose upon us. 'Wir haben uns mit eigenen Händen die Lebensader unterbunden und hinken als verkrüppelte Judenknechte hinter Jahve's Bundeslade her!'

Such is the general impression produced by the average modern account of Plato's teaching on the ethical side. But the ancients regarded Plato as less original. They freely accused him of shameless and persistent plagiarism.[1] The *Republic* was a theft from Protagoras, the *Timæus* from the Three Books bought from Philolaus. His refutations of the Eleatics were borrowed again from Protagoras. Diogenes' account of Plato summarises a detailed proof of a deep debt to Epicharmus. Aristippus, Antisthenes, and Bryso are also mentioned as sources from which Plato 'took what he required'. It is no doubt true that much of this is only malicious gossip and cannot be supposed to rest on any substantial truth. But it does show at any rate that Plato was not regarded as an isolated phenomenon. In this paper we are concerned only with the ethical antecedents of Plato, and of preceding or contemporary philosophies only with the Pythagorean. It happens that tradition supplies connecting links between Platonism and Pythagoreanism on the ethical

[1] Zeller: *Plato and the Older Academy*, p. 38, note 94.

side which deserve careful investigation. I do not propose in this paper to undertake such an investigation: my intention is less ambitious—assuming the tradition to be in the main sound to consider where it leads. The tradition, tacitly rejected by Diels, is accepted by Burnet,[1] following Döring,[2] and my object is to follow out the line of thought which they indicate.

Diogenes twice asserts that Pythagoras invented the use of the Greek φιλόσοφος φιλοσοφία for philosopher and philosophy in place of the hitherto usual σοφός σοφία. For none, he said, was wise save God. Sosicrates and Heraclides of Pontus are given as authority for a conversation between Pythagoras and Leon, the tyrant of Phlius (or as another account has it, of Sicyon). Leon asked Pythagoras what he was, and he answered 'φιλόσοφος'. Life, he said (so Diogenes continues), was like a πανήγυρις, *i.e.* like the company that assembled from all quarters at the games. Some came to compete, some to traffic, but the best came to look on. So in life, some had a slavish nature, seeking for glory or profit: but the others, the philosophers, sought truth. The parable is clearly meant to explain the meaning and use of φιλόσοφος. The contemplative life is the ideal, and man has two alternatives to it—the search for honour and the search for glory. This clearly implies that Pythagoras used the three words φιλόσοφος φιλότιμος φιλοκερδής, which are the characteristic names in Plato for the three parts of the soul, or words closely related to them. The use of φιλόσοφος for σοφός would no doubt be conditioned on the one side by the belief that the wisest are not really wise but only seekers after wisdom, and on the other by the desire for a form analogical to φιλότιμος and φιλοκερδής. But we have not to rely on a mere inference from this story for evidence of the fact that Pythagoras used the notion of a tripartite soul before Plato did. The Platonic division into λογισμός, θυμός, and ἐπιθυμία is attributed by Galen on the authority of Posidonius to Pythagoras, though Galen adds that Posidonius inferred this not from any writings of Pythagoras (since none had been preserved) but from the writings of 'some of his disciples'. And Iamblichus is said by Stobæus to have attributed the same view to the school of Plato, to Archytas, and to the rest of the Pythagoreans. It should be noted that the attribution of the

[1] *E.G.P.*, § 45. *Greek Philosophy: Thales to Plato*, § 25. *Cf.* also Burnet's note on Plato, *Phædo*, 62 B., in his edition of the dialogue.

[2] A. Döring, *Wandlungen in der pythagoreischen Lehre* in *Archiv für Geschichte der Philosophie*, vol. v. (1891-92), pp. 503 ff.

tripartite psychology to the Pythagorean school is current in philosophic circles not hostile but friendly to Plato.

Now apart from the connexion with the Pythagoreans the interesting point in this tradition is the implied assertion that the tripartite psychology is an integral part of a wider doctrine, which Burnet calls the theory of the three lives, and which involves that exaltation of the activity of contemplation which is common to Aristotle and Plato and finds its noblest and most complete expression in the philosopher-king of the *Republic*. If true this is important. It would justify us in asserting that wherever we meet the exaltation of the philosophic or contemplative above the practical life we have, implicit at least, the tripartite soul. And since the praise of philosophy as the summit of human endeavour often occurs both within and without the Platonic writings without explicit reference to the tripartite psychology the range of evidence on which we have to base our interpretation of that psychology is thus immensely increased. The many ill-conceived attempts which have been made to show that the tripartite psychology is practically confined to the *Republic*, and is there forced upon Plato by a rather strained parallelism between the State and the human soul will collapse automatically: for it is easy to show that there are clear traces of the doctrine, interpreted in this wide sense, in dialogues earlier and later than the *Republic*. Besides this the interpretation of the psychology cannot but be profoundly affected by an attention to the implications of the tradition; and I shall attempt to show in this paper that if the close connexion between the Three Lives and the three parts of the soul is kept in mind a good many difficulties which have been found in the tripartite psychology seem less pressing, the so-called parallelism of State and soul in the *Republic* becomes more comprehensible, and that in general we achieve a correction of perspective which gives increased clearness and definition to the whole picture.

§ 2. *The Doctrine.*—The parable attributed to Pythagoras divides humanity into three classes, the covetous, the ambitious, and the curious, each being named after the ruling passion. But it is too much to suppose that the covetous are wholly incurious or the curious wholly unambitious. What the division specifies is the three typical motives of human action, and all three motives will be found operating at different times in every normal human soul. Thus the classification of lives or men becomes a classification of motives, or, in the vague modern sense of that word, of

desires. Every human soul has implanted in it at birth a natural tendency to seek these three things, profit, honour, and knowledge. Now in general it is true—though exceptions are to be found—that the three pursuits are incapable of combination. To seek profit is to forgo for the time being the pursuit of honour or knowledge, and to seek knowledge is to forgo for the time being the pursuit of profit or honour. Thus *prima facie* at least it appears that human nature is three-sided, and while one side is being satisfied the other two are being starved. The counsel of the moralist might be that each side should be satisfied in turn, or it might be that one side was evil and should be starved altogether, or again that one was all-important and should receive so far as possible exclusive attention. We know as a matter of fact that the last is the advice given in the *Phædo*, and that in the *Republic* an attempt is made to show that in knowledge there is both honour and profit, so that in a sense exclusive attention to one of these three sides of our nature results in the satisfaction of all three, while exclusive attention to any other brings misery and disaster.

What Plato tries to show in the last case is that honour and profit are found where they are not sought. There is no question of interpreting the search for knowledge as at the same time a search for honour or profit, and little effort is made to conceal the fact that the honour is not what the man of honour would recognise as such and the pleasure is far different from any that the man of pleasure conceives. Nevertheless knowledge does bring with it true pleasure and, we must suppose, true honour: for the whole soul is content and at peace when knowledge is attained. This is the gist of Plato's proof that the philosopher is 729 times as happy as the tyrant and many times as strong. But there is another typical case in which two motives do, it seems, really combine, *i.e.* in which two sides of our nature do simultaneously seek and find their satisfaction. The love of knowledge leads a man, reluctantly it is true, but inevitably, to empire. The philosopher's empire is within himself and the subject over which he asserts it is his own covetous instincts. He must spare time from his preoccupation with the knowable to keep order among this multitude; and when obedience has to be enforced, the multitude proving rebellious, the love of honour ranges itself beside the love of knowledge. In regard to its true business of knowing the philosophic impulse is sufficient to itself, and the same is true it seems of the secondary task of rule when the subjects are willing and loyal and co-operate gladly; but when

rebellion threatens ambition takes the field beside knowledge, for honour as well as truth is at stake in the conflict. In this victory then ambition and philosophy together seek and find satisfaction. But both are fighting for self-preservation. And since the struggle and effort is occasioned by a defect, and the result is a removal of evil rather than an achievement of good, the satisfaction is negative rather than positive, and only for that reason is common to these two diverse motives. It still remains true, therefore, that genuine satisfaction of any one side of our nature excludes that of the others. Each has its own characteristic activity which cannot be combined with either of the others.

Socrates's counsel in the *Phædo* and in the *Republic* is that the love of knowledge should be the leading motive in life. Nothing is to stand in the way of its satisfaction. Attention to anything else is only excused by necessity. Pleasure and honour, as such, are not to be sought at all. The undivided pursuit of knowledge, and that alone, brings a man success in this world and in the next. The knowledge to be sought is called knowledge by no figure of speech: it is not a knowledge of arms or ships or houses, not a knowledge of human good nor of anything else that might be supposed to be useful to the citizen or to the politician. It is metaphysics or theology—knowledge of the eternal real—which is the title to supremacy in the soul and in the State. If this is a paradox, it is certainly deliberate and intended. No attempt is made either in the *Phædo* or in the *Republic* to show that from this metaphysical knowledge conclusions can be deduced which are directly applicable to the ordinary affairs of life. These are not the fruits of philosophy. But as preoccupation with the visible changing world of experience necessarily produces a will which is restless and variable, so the apprehension of eternal immutable reality infects the will with peace and constancy of purpose. The reward is that the philosopher grows like the divine on which he gazes.[1] The world he now knows is really one and eternal, and time and multiplicity are shadows and illusions. Responding to that knowledge his will, preserving like the world a surface of change and mutability, is in reality one and unchanging. Thus it seems that in philosophising as continuously as the body will allow the soul is not withdrawn from life but is actually finding its way through it, and similarly it is not neglecting

[1] *Thæt.*, 176 B., ὁμοίωσις θεῷ κατὰ τὸ δυνατόν. The passage is an epigrammatic summary of the ethical doctrine of the *Phædo* and *Republic*.

its secondary function of rule but is actually performing it. It is only when discord and disaffection arises that the business of ruling interferes with philosophy. In the temperate man loyalty and co-operation are secured, and the philosophic contemplation need never be interrupted.

To some it has been a matter of surprise that Plato counted so confidently on finding these three characters—the love of knowledge, of honour, and of profit—graven 'in larger letters' on the life of his ideal State. But if these are the three characteristic pursuits and preoccupations of humanity a State in which any is lacking would be incomplete. Any society whatever is bound in some degree to exhibit all three, even though the social organisation which is called the State refused explicit recognition to one or another. The healthy State which does no violence to nature must needs recognise all three; and the only question for Plato is in what form are they to be expressed. He is not relying on any hazardous parallel between the soul of man and the soul of the State, but on the plain fact that State-organisation must take account of every need and demand of man's nature. The activities of the community then will necessarily fall into these three classes. There will be the work of production—the economic or profit-seeking activity—the work of self-protection and self-assertion, inspired by the love of honour, and the search for truth inspired by the love of wisdom. Every State has these three interests, and in forming the ideal State we must see that the organisation makes due provision for each. So far the doctrine of the tripartite soul will carry us, and Plato does not attempt to push it any farther. He does in fact argue that each of these three interests should be in the professional keeping of separate bodies of men—honour in the keeping of the army, knowledge in that of the ruling elders, production in the hands of craftsmen who may neither fight nor rule. But the separation of classes is not based on any inference from the division of functions. That arrangement is recommended because it is likely on other grounds to be the most efficient. Certain men are to be specially trained to think for the State, certain others to fight for the State, and others again to produce for the State. This does not mean that the rulers are devoid of appetite or self-assertion, so that they cannot show courage or temperance, or that the soldiers must not think and can have no wisdom, or that the craftsmen, as some writers seem to suppose, are appetite and nothing more. As an individual in his individual relations each citizen of the State will of course so far as is proper

and possible employ all three activities and exhibit all the cardinal virtues. But each group is entrusted by the State with a special function, and the individuals composing it are, each in a certain part of his life, active on behalf of the State. All may and should have wisdom and courage, but it is only the courage of the soldiers which is the courage of the State and only the wisdom of the guardians which is the wisdom of the State. The class of craftsmen have a special function to perform, *viz.* the production of the necessaries of life, but the proper performance of this function does not of itself constitute any State-virtue. For it is no virtue in a man to see that he does not lack the necessaries of life; and the love of money or profit, is only a common and pernicious perversion of the innocent desire for a competency. No action of a man or of a State should be a seeking for wealth: that unnatural passion is the root of all evil: but all should be inspired or at least controlled by the love of wisdom, and some should be inspired by the indignant rejection of dishonour. Thus the life of honour and the life of pleasure are both excluded; for if a man is to live for honour he must give up knowledge altogether, and if he is to live for pleasure he must give up both honour and knowledge. The life of the State must be the life of knowledge. Yet in a sense both honour and pleasure are included. Neither may take the helm, but for both there are services to perform under the command of knowledge. There are certain appetites whose satisfaction is necessary to life, and there is a love of honour which is necessary to the good life itself at least on this earth.

Life engages a man's appetites, his honour, and his curiosity. In all three fields the State is necessarily engaged; and it therefore disposes itself into three armies, one for each field. The smallest of the three armies directs and controls the movements of the other two.

Looking back over the foregoing analysis we may distinguish three applications of the notion contained in the Pythagorean fable. (1) It originates as a division of men into three classes according to the manner of life they lead—the life of knowledge, the life of honour, the life of gain-getting or pleasure. (2) It becomes, secondly, a classification of the motives which alternately operate in every individual. There are three wills between which men from time to time hesitate, and hence the moral struggle. (3) Thirdly, in the perfect life when the love of knowledge is supreme, while the search for honour and gain as such ceases, yet the hunger for these things is not simply suppressed: one activity is

supreme, but the other two persist as strictly subordinate activities in a residual form. There are the appetites which are necessary to life and there is the self-respect which is necessary to morality. In the perfect life there is still triplicity of function though there is unity of direction or motive. Thus the three forms are no longer alternatives; they are no longer three wills between which the man hesitates: they are all present together, united for the first time after a fashion which is described by the metaphor of ruler and subject.

The account of the origin of the State in the *Republic* supplies by implication yet a fourth view of the inter-relation of these three forms; and since the implication has not, so far as I know, been pointed out I may be excused for establishing it here. The State originates as a purely economic association. Co-operation makes the necessaries of life less precarious; and the infant society, the 'minimum city' (*ἀναγκαιοτάτη πόλις*), as Plato calls it, might be defined as an association for the satisfaction of the necessary appetites. Next, provision begins to be made for the amenities of life. This means that unnecessary appetites (which may of course be quite innocent) are recognised and their satisfaction is socially organised. By this door luxury and wealth enter; and they bring in their train war. And the exigencies of war will no doubt provide a check and a discipline for the growing tribe of unnecessary appetites. Temper (*θυμός*) now takes command instead of appetite. But the warrior needs training, and the State must devise a system of education for him. Once attention is turned to education there is no stopping place short of complete knowledge. The goal is the production of the philosopher, and when he comes knowledge must supplant temper as the ruler of the State. When the philosopher rules, the city will be purged of all luxury and ostentation. The unnecessary appetites will be suppressed, the swagger of the soldier will be corrected, and the full-grown State will be ready for united action at home and abroad.

The application of all this to the individual is plain. Nothing interests or occupies the infant but the necessaries of life. But alongside of the necessary appetites and out of them spring by degrees opportunities for enjoyment. Out of such enjoyment emerges the notion of the self as a thing to prize and develop. Hence a somewhat competitive self-assertiveness, which at once operates as a check upon the exploitation of the appetites. The young man will probably swagger a little; he will very likely be provocative in manner

and strive after originality in dress. It is only by degrees that these things drop away, and perhaps by the time he is thirty he will be ready to depose Temper and put Knowledge on the vacant throne. For these reasons our future philosophers will serve first as soldiers. The State will thus use the characteristics of youth where they are valuable, and provide an occupation for the rulers at a time when they are too full of physical vigour and energy to be fit or able to concentrate their thoughts on the pursuit of truth.

Thus, (4) fourthly, in this passage we have by implication an evolutionary account of the three forms as successively dominating the life of the individual in its three stages of childhood, youth, and manhood. So looked at, the forms are once more in a sense alternatives, but not primarily alternatives between which the individual chooses. Appetite of some kind is his from birth; but Temper and Philosophy are later growths, successively superimposed, as it were, upon appetite; and it is only in the second half of a man's life that the love of knowledge can be expected seriously to influence conduct.

§ 3. *'Parts' of the Soul.*—In what sense does this doctrine involve us in the assertion of 'parts' of the soul? The treatment of this question is commonly confused and prejudiced by the modern psychological classification of the elements of consciousness under the three heads of *Denken, Fühlen, Wollen* — Thought, Feeling, Desire — Cognition, Affection, Conation. The doctrine is treated as a stammering utterance of this great truth, and under the spell of the Evolutionary Method historians of philosophy treat Plato as a child who talked bad English or German instead of as a grown-up man who talked good Greek. But the modern classification, whether it is adequate or inadequate, proceeds upon an entirely different principle from the Greek. The point need not be argued in detail. It is at once evident from the fact that our psychologists are careful to inform us that their triad is in simultaneous occupation of consciousness; all three are present in *every* 'psychosis' though in varying proportions; while the Greek triad is often represented (as we have seen) as a triad of alternatives, each excluding the others, and each striving on occasion to supplant whichever of the other two is in possession. A man cannot choose whether he shall think, feel, or desire: he must do all three: but a man can and must choose whether he shall pursue truth, honour, or profit. No direct comparison, therefore, is possible between these two classifications.

The true analogue in modern thought to the Platonic

division is to be looked for in moral philosophy, in the recognition, implicit or explicit in every system of ethics, of a duplicity in the will itself as the root of the moral problem. The moral struggle is conditioned by the fact that the man has two wills; and if we say 'three' instead of 'two' we have the problem as it appeared to Plato. The fact that we still speak Platonically of the moral conflict as a conflict between 'reason' and 'desire' does not blind careful writers to the obvious fact that there can be no conflict between the parts or elements of consciousness in the modern sense. Even Aristotle, who already classified the activities of soul on a somewhat different principle from Plato's, refers to the conflict sometimes as one between *νοῦς* and *ὄρεξις*; but it follows from his analysis of *ὄρεξις* that there can only be conflict if there is *ὄρεξις* on the side of *νοῦς*, and *νοῦς* or some other form of cognition on the side of *ὄρεξις*. The modern threefold classification has nothing whatever to do with the moral conflict, and it may be taken as certain that any classification which approximates in any degree to the modern becomes inapplicable in the same degree to that conflict. It is where moral philosophers attempt to classify motives and explore their possible collisions that they are treading the same ground as the three forms of Plato.

The comparison, then, of these three forms with the modern division of elements of consciousness is to be deprecated. But if it is made I cannot see any reason why it should be supposed that the modern method is any more successful than the ancient in preserving the unity of the soul. The modern looks inside himself and finds on every occasion three elements forming a complex whole which he calls a psychosis; the ancient looked at man's conduct and observed in it three tendencies, he looked at life and saw in it three necessary functions, and since life and conduct are manifestations of soul, he was bound to attribute the triplicity to soul. The difference is typical of the difference between the Greek and the modern view of soul. We are apt to think of soul as a thing we shall see if we turn our gaze inward, while the Greeks thought of it as the sum of those functions which are observed to differentiate living from lifeless matter. Hence we moderns, being ourselves men, think that only men have souls, while the Greeks had to credit plants with them. They did not mean that plants were capable of the inward gaze, but simply that plants were alive. A candid comparison of these two ways of regarding soul can hardly fail to result in the admission that the advantage lies wholly with the Greeks. Introspection in the

literal and direct sense is probably impossible, and the kind of memory which passes under that name is extremely blurred and unreliable. Our knowledge of ourselves is not different in kind from our knowledge of other people. In degree it is superior, more detailed and continuous, but it is very much hampered by prejudice and prepossession. If we formed our estimate of ourselves, as we form our estimate of others, from our actual conduct and behaviour, we should gain enormously in candour and determination; and if we applied the same method to animals we should be spared a good deal of false psychology. The only sound method of discovering the nature of soul is by the classification of its manifestations in the life of living things, and that road Plato has followed. If the activities of life are manifold the functions of the soul are manifold, and it is nonsense to say that by the recognition of such diversity the unity of life or the unity of the soul is destroyed.

In the preceding argument I have tried to show in detail that the diversity characterising Plato's tripartite soul is a diversity of function. As much is implied in the names by which Plato usually describes his triad. He calls them, as is well known, 'forms' (*εἴδη*), 'kinds' (*γένη*), 'characters' (*ἤθη*), 'modes' (*τρόποι*), even 'souls' (*ψυχαί*), and only occasionally 'parts' (*μέρη, μόρια*). The division is what is known as logical division, the division of a genus into species. 'Souls' means kinds of soul, and parts of soul means precisely the same thing. Similarly in the *Gorgias* *ὀψοποιική* is referred to as a 'part' (*μόριον*) instead of as a 'kind' of *κολακεία* (463B, *cf.* 464B, 466A). There is nothing surprising in the spacial metaphor, but it would indeed be odd if Plato thought of the soul as extended in space, operating physically with different portions of itself at different times. But there is little doubt that when Plato said forms or kinds he meant what he said. On that hypothesis, and that alone, he is faithfully expounding the implications of the Pythagorean fable from which we started. And since in English the word 'part' suggests a crudity of which Plato was incapable, and goes some way to excuse the patronising contempt with which the doctrine is often treated, we ought to accustom ourselves and our pupils to describing the doctrine in terms which do less injustice to its meaning.

§ 4. *Influence and Importance of the Doctrine.*—Not only has the doctrine of the tripartite soul been frequently misunderstood and misrepresented, but its importance and influence have been greatly underestimated. It is not too much to say that the doctrine dominates Plato's thought in the

ethical sphere, and that in a fashion which would hardly be possible if the doctrine had been novel and of Plato's own invention. When, for instance, in the first book of the *Republic*, Socrates proves the superiority of the just man to the unjust under the three heads of wisdom, strength, and happiness, consciously or unconsciously he is guided by the three forms and applying in succession the tests of attainment recognised by each. In another passage of the same book the reference is more definite. Socrates says that it is difficult to persuade the best men to rule: for a high salary will not tempt them and they are not ambitious. The love of honour and the love of money are mentioned: only the love of wisdom is omitted. But the paradox of the rule of philosophy is implied as plainly as can be—and this in Book I., which is often thought to be some years earlier than the rest of the *Republic* and to belong to the 'Socratic' period. Similarly Aristotle's *Ethics* begins with a reference to the three lives: the vulgar seek pleasure, sometimes perverted into money, the politician seeks honour, and finally there are the spectators, who live the life of contemplation. Aristotle's triple classification of motives (1104*b*, 30) *καλὸν-αἰσχρὸν*, *συμφέρον-βλαβερόν*, *ἡδὺ-λυπηρόν* is probably a by-product of the doctrine, and the use of *καλὸν-αἰσχρόν* as the highest category may be connected with the notion of the highest activity as that of a spectator of life. Aristotle's triple classification of desire (*ὄρεξις*) into *ἐπιθυμία*, *θυμός*, and *βούλησις* undoubtedly comes from the same source and was probably simply taken over from the Academy. This is suggested not only by the casual way in which the division is treated, the position of *θυμός* and its nature being nowhere adequately investigated in the Aristotelian corpus, but also by a consideration of the psychology of the *Laws*, which is a most valuable connecting link between the *Republic* and the *Ethics*. In the *Laws*, knowledge is no longer set forward as the supreme goal of life, and the notion of the human good is set in its place as the supreme director of conduct. The effort after *τὸ ἀνθρωπινὸν ἀγαθόν* is precisely what Aristotle calls *βούλησις*. Aristotle's three species of desire are in fact just the Socratic-Platonic three forms modified by the withdrawal of the paradox of the philosopher king, and by the consequent divorce of practical wisdom from philosophy.

It is not necessary here to search the records of Greek philosophy for further detailed evidence of the profound and continued influence of the doctrine; but we may remark in conclusion that all probabilities favour the truth of the tradition of its Pythagorean origin. The pure Ionic tradition

from Thales to Democritus knows nothing of the three lives, and it is probable that no Greek thinker prior to Socrates called himself a *φιλόσοφος* outside the Pythagorean School. If Zeno really wrote a tract *πρὸς τοὺς φιλοσόφους*, as tradition says (Suidas: *Vors.* 127, 15), the title, as Döring has acutely suggested, would have been understood by his contemporaries in Magna Græcia to specify the Pythagoreans as the object of attack. The single fragment of Heraclitus which contains the word *φιλόσοφος* may well have the same reference. *Χρὴ εὖ μάλα πολλῶν ἵστορας φιλοσόφους ἄνδρας εἶναι* (*Byw.*, 49, D. 35), 'Lovers of wisdom must it seems have knowledge of many things'. But wisdom, we may remember, is one, not many (*B.*, 19); and this same Heraclitus accuses Pythagoras by name of possessing much learning but little sense (*B.*, 16, D. 40), 'Much learning does not teach understanding, or it would have taught Hesiod and Pythagoras, Xenophanes and Hecatæus'. Here again therefore *φιλόσοφος* may well be used derisively for 'Pythagorean'.

The doctrine of the three forms is quite compatible with everything else that we know of the Pythagorean school. We know that they preached a doctrine of purification which was a kind of heretical Orphicism, and the burden of their heresy can hardly have been anything else but that 'the purgative is philosophy' as the Socrates of the *Phædo* teaches.[1] And that doctrine as expounded by Socrates, who pretends to no originality, involves the three forms. The account of Pythagorean opinions given by Iamblichus contains the distinction of *τὸ τῶν φιλοτιμιῶν γένος* from *τὸ τῶν ἐπιθυμιῶν* (Diels, *Vors.*, 287, 41), as well as the classification of motives into pleasure (*ἡδονή*), profit (*συμφέρον, ὠφέλιμον*) and beauty (*καλόν, εὔσχημον*) (*Vors.*, 288, 10-17). It is true that the Pythagoreans are also credited with a fourfold division of the soul into *νοῦς ἐπιστήμη δόξα αἴσθησις*, but it is surely the extreme of stupidity to suppose that this division conflicts in any way with the other. It would be as sensible to say that in the *Republic* the fourfold division into *εἰκασία πίστις διάνοια νοῦς* is in contradiction with the triple division into *ἐπιθυμία θυμὸς λογισμός*. But writers who solemnly discuss under which of these three heads *αἴσθησις* falls are presumably capable also of finding *ἐπιθυμία* somewhere in the division *νοῦς ἐπιστήμη δόξα αἴσθησις*. They

[1] It can hardly be any one but the Pythagoreans who are referred to by Epicharmus in the line—*Θνατὰ χρὴ τὸν θνατόν, οὐκ ἀθάνατα τὸν θνατὸν φρονεῖν*; and the same explanation must be given of his other apparent references to Plato, if the fragments are genuine.

may be left to do their worst by themselves. Plainly a classification of the various forms of cognition cannot conflict with a classification of the needs and tendencies of human nature whose rivalry gives rise to the moral conflict and whose harmony is virtue.

The conclusion of the whole matter, then, is that we must amend our account of the origin of Greek ethics. Plato did not create out of nothing. In this paper I have avoided raising the question how much of Plato is Socrates. It is not a question to which a precise answer will ever be possible; but it is becoming increasingly certain to me at least that Prof. Burnet is nearer the truth than most of his critics. But however that question is answered, I feel sure that a very considerable part of the Socratic-Platonic doctrine is in essence Pythagorean. The ethical speculation in particular derived its impetus and its leading ideas from that source, and received in the three forms a solid psychological foundation on which to build. Of course if Orphicism is Oriental, as some say it is, that would account for a taint of the East in Socratic-Platonic ethics. But it has never been proved that Orphicism was not indigenous, and in the absence of proof it is best to assume that it was. Thus ethics has a longer and more interesting ancestry than is sometimes supposed. Its roots indeed are really as deep as those of any other branch of philosophy; for if science was born in Ionia, philosophy was born in Magna Græcia in the Pythagorean and Eleatic schools.

IV.—IDEALISM AND RELIGION IN CONTEMPORARY ITALIAN PHILOSOPHY.

By Angelo Crespi.

Italian is no longer so widely studied in England as some twenty or thirty years ago or more, and this is a great misfortune both for Italian and for English culture, not only because in the field of letters, for instance, treasures of contemporary Italian poetry, perhaps unequalled elsewhere, are now no longer known or studied in England as once even minor poems were; but also because in strictly philosophical thought Italy has been in these last few years particularly fertile, and there are some who think that it is there that, for the moment at least, philosophy has reached its keenest consciousness of her present task, and in the systems of Signor Benedetto Croce and of Prof. Bernardino Varisco taken into herself, in a bold constructive endeavour all the best that has been heretofore produced within or without Italy.

And yet the study of Italian philosophical thought should be particularly interesting; for the philosophic stream of any other national spirit takes its origin, sooner or later, from Italian impulse, from the impulse of the Renaissance and then of Galileo, Bruno, Telesio and Campanella. Italy's own philosophic stream in its most vital character and feature is thoroughly continuous and autochthonous even, one might say, from the days of Pythagoras and Empedocles. Modern naturalism, more especially modern historical and political science, had its origin in Machiavelli and its first philosophical treatment in Vico, one of those centres within which all German Idealism, romantic and logical, was as in germ, and from which modern philology and æsthetics took their start.

Then in the nineteenth century Italy can boast an independent, though a minor Kant in Rosmini; and in Vincenzo Gioberti she can recognise her Fichte, her Schelling and her Hegel, although here the three steps, which in Germany were exemplified in three different thinkers, appear in a more spasmodic manner and with less clear self-consciousness.

The German Hegel was introduced only later on into Italy by Bertrando Spaventa, a kind of Italian Hutchison Stirling. And Italy also had her subsequent phase of empirical and naturalistic barbarism in the last quarter of the same century; only she gave to the world, in Roberto Ardigò, a philosopher of naturalism more aware of the real problems than Taine or Spencer had ever been, and an exponent of views, which, but considerably later, were favourably greeted, when advanced by Fouillée or by Mach.

At the present moment Italy is having her phase of idealistic sunshine through the great influence of such systematic thinkers as Benedetto Croce and Bernardino Varisco. The former, whose thought is substantially expressed in four not very big and admirably clear volumes, represents, as a whole, a remarkably original re-thinking of Hegel in the direction of an absolutely and exclusively immanental *Weltanschauung*. To him spirit is the one reality, and spirit, as best known to us, is—essentially—historical becoming; the truth of knowing is *making;* the truth of evolution is history, which is the Universe's self-making, and Man is, so far, the highest self-consciousness achieved by this process, while particular individuals are stages or historical phases of this becoming of the Universal Spirit; hence the identity of history and philosophy; "philosophy without history is empty; history without philosophy is blind". History is the process, of which philosophy is the *rationale*. Substitute history, so conceived, for the Bergsonian *flux*, the concrete universal for creative intuition, dialectical process for psychological becoming; the eternal self-realisation of Spirit through spirits for spirits taken as phases of spiritual evolution swallowed up, transmuted and unaccountably preserved within some final changeless, super-relational Absolute of the English Neo-Hegelian Bradleyan type and you have the essential lines of Croce's anti-platonic, anti-ontological, exclusively historical idealism, an idealism which claims, once and for ever, to have buried every metaphysic of Being under its metaphysics of creative knowledge.

It goes without saying that, for such an idealism Religion can only be a *philosophia inferior*, a childish philosophy philosophy because rightly asserting the world's ultimately spiritual nature, childish because unaware of the true nature of Spirit, which it expresses in a figuratively mythical form, instead of a notional one. The moment Spirit is seen to be unity of subject and object, and the moment we become aware that to hold such unity as eternally and perfectly self-realised and self-realising in some Absolute Being, is to avow

that our human historical knowledge, by which such assertion is made, is not really knowledge, we are driven to an essentially historical view of Reality and to see in Man's self-consciousness the hitherto achieved and ever active and creative self-consciousness of the Absolute. Man is all we know of the Divine, and, also, all we need to know.[1]

And it also goes without saying, that a philosophy of this kind, which claims to be a philosophy of freedom as against all ontologies (naturalistic as well as spiritualistic) which are presented as necessarily philosophies of oppression, meets with great favour from all those who in a country like Italy, still feeling the effects of centuries of political and especially of priestly oppression, resent even the thought or the shade of the thought of anything transcendent, of anything to which man should have to bow. No wonder that even many self-styled Modernists, little aware of what, in its best constructive sense, Modernism was meant to be, should have embraced this philosophy as the grave-digger of every ontological claim and belief, as the upholder of Man's dignity, as of a God in the making. In Latin countries it is only too easy to understand how everybody presenting Christianity and Religion as exploded though venerable superstitions, should, and for some time yet will, find eager apostles and listeners.

Prof. Varisco's thought is set in a quite different direction. Fully conscious of the present conditions of science and philosophy within and without Italy, he is also fully aware that there are, in life and in thought, some "greatest problems". It cannot be without influence on our lives whether we vitally believe in God and in the soul's permanence or whether our belief is of a good or a bad kind. Feeling may not be a safe guide in life; but feeling may have its reasons and be the vehicle of some truth. Hence Prof. Varisco starts his inquiries in the following manner: "Are Theism and Christianity played out or not? They must either be or not be true. They must, as well as their opponents, have something to say for themselves; well, let us listen to them, and before all let us take stock of the whole of our experience; that is, let us start on the philosophic venture." Prof. Varisco's work consists therefore substantially of two endeavours. There is, first, a well-sustained polemic against those who agnostically deny the possibility of such a venture

[1] See *Ciò che è vivo e ciò che è morto di Hegel; Filosofia dello Spirito:* Vol. I. *Estetica;* Vol. II. *Logica;* Vol. III. *Filosofia della Pratica,* di Benedetto Croce (Laher a, Bari, 1909).

and who remain confined within empiricism. And this is the easier part of his task, the part which it would be less profitable to summarise for the readers of this Review since the conclusions here reached have in England been received by almost all those who are competent to judge. But, secondly, Signor Varisco's work contains a keen criticism of the epistemological and logical assumptions of Absolute idealism, chiefly of the monistic and pantheistic type. And the result of this inquiry is that such idealism, after perhaps the keenest trial it has yet been submitted to, is found wanting, and that Theism remains still a plausible alternative and neither excluded nor possible of exclusion. The work of Prof. Varisco has already received attention in France and Germany and has been noticed in England by Dr. Bosanquet and Prof. A. E. Taylor, by the latter with deep sympathy,[1] and as the author avows some indebtedness to Edward Caird and to F. H. Bradley, this is one reason the more why the essential contentions of his philosophy should be made widely known.

Prof. Varisco's starting-point and his justification of philosophy in general as against empiricism and agnosticism does not essentially differ from that of ordinary idealism: in science we have only an abstract, consequently imperfect systematisation of reality obtained through a provisional dropping of the subjective aspect of experience; but if we wish to get a complete account of experience we have to interpret it in the light of a doctrine of what experience is; of a doctrine of the subject as knowing.

When I am myself the known reality there is no problem of how knowledge is possible. I *know* I am so and so because I *am* so and so; and it might even be said: I *am* so and so because I *know* it; my being and my knowing myself are one and the same thing: I am a unity whose existence consists in its being present to itself. The difficulty about the possibility of knowledge arises only in regard to external things or other Egos, which I do not usually connect in any essentially organic manner with my own being. And, of course, so stated the problem is insoluble. To know anything means that I am in a certain relation to it. To be able to know anything means that I can enter into that relation, and such a mere possibility is already a relation between its terms. And this implies that each is essential to the other and their relation to the reality of both. I can only know what is

[1] Bernardino Varisco: *Massimi Problemi* (1910) and *Conosci te Stesso* (1912). Milano (Societa Editrice Milanese).

already in some essential connexion with myself and therefore an element of my own being; and to know this and that means to distinguish different elements within the totality of that experience, whose unity I am; and to distinguish myself from other beings means to distinguish this unity which I am from the elements of which it is (and I am) the unity. To say, therefore, that I can only know myself does not mean in the least that I am shut up within myself (in the strict, specified sense of this word), but only that I have no right to suppose that there is anything which is not implicit in myself and may not be made explicit in my consciousness. To know any object or system of objects or the whole world means that it is numerically the same whether included within my own conscious unity or any other. And this is true of sensible qualities as well as of relations (ideas, concepts, notions); they are characters of reality, numerically the same when noticed or thought about by any number of subjects (*viz.*, in their apprehension), and in reality itself. Of course the activity of the subject does not exhaust itself in actually including scattered amounts and aspects of reality. Through memory, habit, etc., representing past experience and working under the control of the reality actually included, it helps itself towards a representation of the included reality less fragmentary than the amount of it actually experienced, thus achieving the knowledge of a world of concrete realities, whose relations and characters are numerically the same with our notions of them, and whose total order, when abstractly thought out, is reproduced in the system of our judgments: our reason and the world reason are numerically identical. Either the truth the subject knows is not truth (and then the subject does not *know*), or it is objective, immanent in the known reality. On any other a-sumption Solipsism is unavoidable.

We are thus irresistibly driven, each of us, to build up for himself, through experience of correlative activities and resistances, a conception of the world as consisting of numberless subjects, each capable of including all others within his own unity and of being in its own turn included within their own unities, each essential to all others, so that no part of this world can be actually unknowable to any other; nay, no part of it is not actually known by some other. The fact of knowledge excludes from the world the fact of unknowableness and any possibility of things in themselves existing apart from and independent of and indifferent to any thought. To say that the realities I know are not

merely real as known by myself can only mean that they can and must also be objects to somebody else.

And with things in themselves the subjectivity of space and time too becomes meaningless, in a world where all that is appears to be, space and time must also be forms however subordinate, of the appearing reality; to call them illusions or mere appearances is not to explain them, but only to explain them away. Now, if all possible relations among phenomena were of the kind typified by the relation of ground to consequence, *viz.*, logical relations, of course there could not be any real time, any real happenings, for such relations are timeless. But causal relations between events, though necessary, are not reducible to logical nexuses and are not deducible from them. Their possibility can therefore only be due to the mutual interference of the subjects' spontaneous activities, which, just as our wills, are perennial sources of absolutely new beginnings. Every event is therefore, in so far as due to the subjects, not caused by any previous event; but in so far as it falls within the unity of the system, *viz.*, within logical necessity, every event is necessarily connected with others, and thus nature is assured of a reality of her own, as the sphere of causal relations, though this reality may be dependent upon and fall within the sphere of logical relations.

But if so, we have to do with a world to which unity and multiplicity, necessity and contingence, are equally essential; and we must ask ourselves what kind of unity they reveal in it. Obviously they could not hold together unless they had something in common and were all determinations of some reality including them all and included in and by each of them. But they have just in common the fact that they all *are; i.e.*, the fact *Being;* a fact which is just our common notion of Indeterminate Being. Unless we are to fall back into solipsism we must hold that, just as all sensible qualities and relations among them in the universe are numerically the same when included within only mine and when included within other minds or all particular minds, so too Being, as our most general notion of which all other notions are determinations, is numerically the same identical Being, when included within only mine and when included within all particular minds.

Of course Indeterminate Being only exists in its determinations because my notion of it is obtained through my abstracting it from them; it exists therefore, *qua* Indeterminate only as the abstract thought of some mind; it could not exist without such a mind and it would fade together with

it. But, *vice versa*, the abstraction is possible; which means that, though determinations are essential to it, it, in turn, is essential to them. Neither can be apart from the other: unity and multiplicity exist each in and through and so far as the other. Being is therefore neither a collection nor aggregate, nor a mere genus, nor any sheer *ens rationis;* while all other notions are, to a great extent, our construction, this is not. I could not even be capable of any thought, did I not, at least implicitly, think Being, *i.e.* did I not make explicit to myself Indeterminate Being as implicit in me. Our notion of Being as such is just Being as such getting self-conscious in us as the universal substratum of our particularities. Being is thus at one and the same time what prevents our knowledge from becoming disintegrated and what prevents the world from becoming a mere accumulation: Being is necessary.

And Indeterminate Being has no opposite. When we say we find nothing in a room, we mean we find nothing of what we looked for; we know there are in the room space, air, dust, etc. *Nothing* therefore is not the negation of Being as such, but only of this or that among its determinations. But, if so, if Being, as we have seen, is necessary; and if, as we have also seen, Being, *qua* Indeterminate, can only be thought through abstracting it from its determinations, then the ultimate law we are seeking is the intrinsic necessity for Being of ever being determinate. Being must ever have some logically essential determinations. All concrete realities (subjects, monads, events, etc.) are determinations of Being. Are they also its only and necessary determinations? If we answer the question affirmatively we stand for pantheism; if we answer it negatively we stand for theism.

Let us first suppose that the concrete realities of the phenomenal world are the only necessary determinations of Being. If so, time and happenings will also be among such determinations and the changing of the universe must be rooted in an intrinsic necessity of Being, in the necessity of its ever being possessed of all its logically essential determinations; and this necessarily implies the existence of particular subjects whose thought this Indeterminate Being should be. Without the mutually interfering spontaneities of such subjects there would be no happenings, not even the subject's thinking, nor the possibility of Being attaining thus mediately to self-consciousness: Being would not be all it must be: Being would not be. The Universe as a whole, in this

hypothesis, is always the full self-realisation of Being. This, its End, if we may call End a merely logical intrinsic necessity, is ever achieved, nor can it ever fail to be so. Change is the form of the fullness of Being; the world changes in order ever to remain essentially the same; it would preserve its essential features through ever changing their bearers and spectators. At any moment in its history (if such change be worthy of this name), in some part of the world there cannot fail to be striving monads, experiencing subjects, rational beings, historic societies and world-civilisations emerging from and triumphing over the network of merely causal relations through which and by means of some philosopher in them Reality attains to self-consciousness. Just as perhaps, or rather not less certainly, in some other part of the cosmos historic societies, living beings, etc., are being overcome by the unsubduable and rising tide of some ocean of purely causal relations too strong for them.

We should thus have a universe in which the absence of teleology in the totality of it would be not only perfectly compatible but even unfailingly linked up with the existence of partial and transient teleological systems within scattered ranges of it; a universe in which no preservation of values would be possible either for individuals or for societies except within a very limited range of space and within very limited, restricted and changeable cycles of time. Nay, values, strictly considered, would only be instrumental forms of the logical necessity for Being of mediately attaining to self-consciousness. All ethical endeavour, all heroic striving and self-devotion, all historic conation would resolve themselves into an eternal tautology in order that what cannot help being should ever fully be.

From a strictly theoretical standpoint no God would thus be required to give the world its intelligible unity; and absolute idealism may fairly claim the dignity of being called the higher and truer naturalism. Idealism too can make its own Laplace's well-known boast: "I do not need this hypothesis". Being in itself is the only value, and the values of all determinate particular realities are measured by the amount of Being they include, or, if it be preferred, by their degree of reality and by the quantitative and qualitative contribution they make—and they are required to make—towards Reality's perfection. In such sense it can even be said not only that no value is lost and all values are preserved, but also that no true value is ever really born; for it is, in its essence, eternal. If such be the case the conservation of value would be guaranteed by the intrinsically eternal nature

of universal Being. The whole alone is truth and law and the measure of our wholeness is at the same time the measure of our eternity. Not so much we, as the *quantum* and *quale* of our wholeness crosses the bar.

But it is more than doubtful whether the faith in and the longing for the conservation of values, which constitutes the soul of Religion, can be so easily interpreted as a mere emotional and instrumental form of the logical necessity of Being ever preserving all its possible and essential determinations. And it is more than doubtful whether it is still legitimate to speak of values on such a view; and though it has Spinoza's self-denying saying, that the true lover of God does not require that God should return his love back to him, an excellent rebuke to all religions and theologies springing from the selfish and individualistic standpoints of the world of claims, to use Dr. Bosanquet's incisive language, it is doubtful whether the typically religious experience does not really contain anything more and does not satisfy some utterly unselfish longing of the soul and reveal some higher form of preservation of values than is allowed by the analysis of the logical necessities of experience. Experience, it is claimed by many, reveals values, which refuse to be resolved into mere instruments of timeless necessities, and which, to be and to remain values, require, as essential condition, some permanence of personality. And if Theism alone is compatible with such values and their preservation, then we must hold that the phenomenal determinations of Being are neither its only nor its essential determinations.

Now, we have seen that Being as a common character of all concrete realities and Being as our common notion of it, are one and the same numerically identical reality and, *qua* Indeterminate, it exists only as the thought of some subject. To say therefore that its essential determinations are not those of the phenomenal world, is the same as to say that it is not necessary to Being, in order to be such thought, that it should be the thought of any particular subject or world of subjects; and, consequently, it is the same as to say that it will have to think itself by itself and be a consciousness independent of and distinct from all possible single consciousnesses. And, as these, in the second alternative we are now considering, the theistic, do not spring from Being by intrinsic logical necessity, their existence can only be due to an intrinsic creative spontaneity of Being itself, which thus would, in a true sense, be *creatively active* and not merely moved according to some logical automatism, as in the previously stated pantheistic hypothesis, where the

only spontaneity is that of single subjects and springs from ultimate logical necessity.

Being, thus understood as self-conscious and as creative of what, without it, could not be and yet does not necessarily spring from it, would be God. God might thus not have created Man, but in creating him has made Himself one of his essential constituents, so that man cannot know himself truly without knowing God as not external to himself and yet as distinct from himself.

Every particular subject would still have Being as one of its essential constituents, but it would no longer be essential to Being to be a constituent of particular beings. God would be a subject including within himself and therefore transcending (as after all each of them transcends all others and is by all of them in its own turn transcended) all finite subjects and their experiencing processes. Only on the assumption of the phenomenal world not being a necessary determination of Absolute Being, but a purposive creation of His spontaneity, all things may be ordered in such a manner that values may be intrinsic values and not merely instrumental forms of logical necessities, and as intrinsic values should be preserved through some process of conservation of persons.

The problem therefore of the truth of theism rather than of pantheism resolves itself into the problem of the ultimate essence of value and of the significance of feeling in experience. Shall we deem in the right those who take feeling as instrumental to dialectical necessities and who, accordingly, consider logical necessity and wholeness as the innermost essence of Spirit; or shall we deem those in the right for whom logical necessity is only the form, the garment, so to say, of an inner spontaneity, so that feeling would be the soul of reason and love the central truth of Spirit, of whose universality the universality of reason would only be the expression and the radiance? Such is the highest problem to which all this argument has been leading all the while, and which the author does not so much pretend to solve as to state with a greater precision than heretofore.

But he does not leave us altogether in the dark in regard to the alternative which appears to him invested with a higher degree of truth. And we can derive much light from his discussion of the alternative theories as to the world and its relations with man, and as to our ways of conceiving value.

The alternative theories are at bottom only two: theo-

pantheism, the doctrine of the Universe as Absolute single knower in all particular subjects and impersonal pantheism as above stated.

The former seems to many to be the necessary consequence of the Cartesian *Ego sum*, our single basal certainty from which everything else—if there be anything else—is to be deduced. As it is impossible that thought should have outside itself the grounds of its own necessity, there can be neither unknown nor known, neither knowable nor unknowable objects outside myself; not indeed outside my wakeful or sleeping self or any phase and form of my empirical self, but outside the thinking Ego, which, as such, is wide as the whole and is the whole. Hence it seems as if there could be only one thinking subject in all, having everything else within himself as its content: God. And we know that historically this result has been reached through a natural development of the Aristotelian doctrine of the *Intellectus agens*: the *intellectus agens* cannot help being numerically one in all men and be at one and the same time God and their true self or soul. Moreover this standpoint seems to clear away some otherwise insurmountable difficulties, chief among them one arising from the difference between knowledge and reality. On the one hand there is such a difference because while my knowledge of anything is, as such an act, purely mine, the known reality is known to others too. On the other hand, if knowledge and the known realities are distinct matters, knowledge becomes unintelligible, for in order that I may know anything it is necessary that the thing's reality and my knowing it should make one; which leads to the paradox that I can know only myself. But the difficulty and the paradox vanish at once if the true knower, in all subjects, is God and the reality of anything consists in God's intuition of it; if, that is to say, there is a single numerically identical thinking activity in each and all of us functioning in each according to the particulars it finds itself connected with, and thus having all empirical selves as its vehicles or rather raw materials and contents.

To this doctrine Prof. Varisco objects, before everything else, that it fails to account for time and happenings, even if taken as mere appearances, and for error. If the true knower within us is God, whose knowledge and reality make one, it is impossible to see how in a system of terms timelessly and necessarily connected any distinction between appearances and reality, between errors and truths, or degrees of reality and truth can find a place. And we have seen how Prof. Varisco fills this gap by his theory of the mutually interfering

creative activities of monads connected into an organic system, so as to make possible, subordinately to and within the sphere of logical necessity, a kingdom of merely causal relations between contingent events. Secondly, he objects that the doctrine in discussion is logically driven to deny or undervalue the distinctness of personal consciousnesses. But against this stands the fact that feelings and values are experienced and enjoyed only by their subjects, while contents of experience alone (colour, sounds, truths, etc.) can be common to many subjects; nay, between persons there are qualitative differences—as between a coward and a hero—which make them even more than numerically different. In the life of the self-conscious Ego value is constituted by the full harmony between activity and feeling, on the one hand (the elements, which are only my own) and cognition on the other (of other elements of the same value in other Egos), and the law of Personality is its respect of itself in all its bearers; and this does not mean that the value of personality is numerically one in all; were it so, the necessity of an effort on my part in order to respect in its fullness the value of others, which we do not enjoy but are merely aware of, would be quite incomprehensible; the truth is simply that all persons have an *equal* but not the *same* value. It may be that persons are elements in higher organic systems and that, even as distinct, they are more than what they seem and the phenomena of social life, of suggestion, etc., may tell against conceiving of them as impervious and isolated pillars, so to say; but we must be aware of drawing from the unreality of isolation between selves arguments for the unreality of numerically different and distinct personalities, elements in an organic system, and capable of explicating and realising in themselves as persons, to an indefinitely progressive extent and depth, the rationality immanent in the whole system. Not only the full acknowledgment of distinct consciousnesses leads to no imperviousness of selves, but it is even necessary to a true communion among spirits. Besides all ethical distinctions, all history would have no value for this single Subject raised beyond good and evil; we should be only means to a phenomenal revelation on his part of which we fail to see any necessity; and, besides, this Subject would give systematic unity to the phenomenal world only by fracturing its own unity into this world's multiplicity and thus leaving its unity quite unexplained.

We are thus left with only two final alternatives; that of impersonal pantheism (*i.e.*, the doctrine of the world as a system of persons), and Theism. And we have seen that the

option for Theism requires as its ground a notion of value which must be substantially different from that leading to Pantheism, for, most certainly, Prof. Varisco and, say, Dr. Bosanquet, must mean by that same word two very different things.

According to both alternatives personality is the highest value; but some say: "Personality is the highest value because in it the whole reveals more of its wholeness and through it lower degrees of reality reach their *maximum* coherence and significance; because in it, more than anywhere else, there is a frank acceptance of all necessary laws, those included which cowards fear, and a steady transmutation of them into elements of universal bearing; because, in a word, in it and through it, experience achieves its utmost richness of content and offers it to the Whole; its law does not imply or promise happiness, permanent or not; but if we are not satisfied with our worth as persons and require happiness, too, then we avow that personal worth is still not ours".

While others reply: "Certainly we long for happiness but the happiness we long for is a happiness based on value and constituted by harmonious co-operation among all the elements of personality; without such happiness, value itself would not *be*, for value is just this harmony, which, if not permanent, simply *is not;* and only through mere lack of imagination can we treat it as real. Even opponents admit that values exist, that personality is the highest value; but is not this admission meaningless if these values are merely forms of eternal necessities? Otherwise, if they are not merely such instruments of timeless realities, both values and personality must be permanent; how could reality without intrinsic contradiction, create personalities with inner yearnings towards absoluteness? Value and happiness may often contrast with one another; but the contrast itself must be but a means to an inclusive harmony of perpetual stability. It is quite true that even without permanence the worth of personality is not altogether lost and something remains normally superior to mere pains and pleasures subduable by normal men; but this something would differ from them only in degree; it would be higher because stabler, but no longer absolutely higher because no longer absolutely stable."

We have thus two concepts of personal worth: the one implying, the other not implying (though not excluding) permanence; the one asserting, the other not asserting, happiness as an essential element of worth grounded on it. The opposition is radical; which is the ethically truer? To whom shall we go for the highest wisdom?

It is clear that, whether we stand for permanence or non-permanence of values, for happiness as essential or inessential to value, we yield, in so doing, to a desire which—whatever may be its ultimate root and evidential worth—is, in the first instance, a product of our psychical constitution; and that we pursue a dream of ours just whilst, in order to realise in our lives the universal law, we ought—it would seem—to renounce any and every private desire or dream. In both cases we exaggerate what is only an element of worth. Everybody, within human experience, needs to be both good and strong; only good men are really strong; only strong men can be really good. Everybody is required never to lose sight of himself and to be sufficient to himself, on the one hand; and yet, on the other hand, to help others and to rely on the help of others. The two movements thus imply each other. But man, even within his own self, indeed the whole of humanity, even in history and society, have to do not merely with each other and with human wisdom; they have to do with the *entire* world, *i.e.*, with a world of not merely logical but also of causal relations; can they then or cannot they rely, *when thus confronting this world and these relations*, upon the goodness of the Whole, upon some help or solidarity not all unlike the help and solidarity of the best among their fellow-creatures? If men have no good reason thus to rely upon the goodness of the whole, they must not attempt to do so; for if they did, they would be pursuing a dream of morbid sentimentality. For, under these conditions, even the deepest goodness would only have a value ultimately subordinate to strength; the whole substance of their worth would be in their self-mastery and mastery of Nature. But if men have good reason to rely on the Whole as having regard to their worth, on the permanence of this worth in the face of the worst, then, indeed, they must do so; then goodness would be the highest law of the world at large as well as of our life, and strength would be only instrumental to goodness; and then, too, to believe that the substance of our worth consists in having so shaped our natures as to enable them to face unflinchingly human perversity and cosmic destiny, without any yearning towards or hope of higher and eternal bliss, is to allow ourselves to be swayed by wild and presumptuous dreams. . . . The permanence of values, in any sense that does not explain them away, must either be affirmed or denied; here where no middle path is allowed, virtue cannot be in the middle; but it can only lie in truth. And truth is grasped, here more than anywhere else, only by and through virtue by the best,

and God and personal immortality stand or fall with their Yea or their Nay. "The pure in heart shall see God," is thus at once, perhaps, the last word of philosophy as well as the first and the last of the highest Religion.

Such is, up to the present, the philosophical structure slowly and cautiously built up and carefully elaborated in its details by Prof. Varisco, whose choice, on the highest issue, is decidedly on the affirmative side, though it be given only as a personal conviction slowly and painfully won; a structure which because of the solidly critical foundations laid to sustain it, of its being deeply rooted in the whole stream of philosophical tradition, from Leibniz to Hegel and Rosmini, and in the main lines of contemporary culture wisely assimilated and selectively digested, we dare proclaim to be, together with Croce's *Philosophy of Spirit* though in keen contrast with it, one among the best and most comprehensive systematic achievements of these first twelve years of the new century's speculative activity.

As the purpose of this paper is merely that of introducing this philosophy, in its essential articulation, to the British public, no attempt shall here and now be made towards a discussion of the points, which, even to the writer of this paper, seem lending themselves to criticism, though—he deems—not to one of a destructive kind. It will be enough to point out that against its chief contentions—its monadism, the relative reality of distinct selves, the significance of feeling—Dr. Bosanquet levelled some of his powerful artilleries in his two recent volumes of Gifford lectures; and that, however decisive his criticisms may be as against Bergson and kindred irrationalists, they do not seem to damage at all any essential point of Varisco's system: for Dr. Bosanquet leaves quite untouched, in his *Weltanschaung*, those features of Mr. Bradley's philosophy (*viz.* the doctrine of time and space), the criticism of which led Varisco to develop Bradley's idealistic monism into a spiritual monadism, where distinctness of selves, as already hinted, far from leading to any imperviousness, is contributory to communion: *distincte unum*. The single serious methodological criticism by Dr. Bosanquet which seems to the writer valid, so far, even as against Varisco, is that grounded on taking experience too often at its ordinary level and after the psychologist's manner and almost never at its highest level and ranges. But even so, it seems hardly true that the deepest experiences of love tell against the distinctness and permanence of personality and that all we long for when we yearn towards Eternity is

the preservation in the whole, somehow, of what most we care for, and with which our true self has identified itself. The deepest experiences of love seem to us, on the contrary, to require a oneness, in which the lovers do not feel themselves annulled each in the other, but rather feel their single realities enhanced to their utmost each through the other, as notes of the same chord: the unity requires the duality. Moreover, could we say that the lover's feeling of self-identification with the beloved one and his "forever" mean merely that he is satisfied in its beloved being preserved in the whole as somebody else's experience? It is remarkable how opponents of the doctrine of immortality, understood as an experience of the Eternal the duration and progressive depth of which should be independent of our present bodily connexion, never try to argue that such an immortality is intrinsically undesirable or selfish; yet if the longing for it springs essentially from self-dedication to the object beloved or adored, if it be a longing for such a life *in* and *with it*, as would eternally require the self-dedication otherwise confined to a mere instant, it is difficult to see why this longing should be held a less adequate form of faith in the preservation of values than the merely logical certainty that the amount of being which constitutes myself, in a sense, was never born and therefore can never cease to be. Nay it is difficult not to see that it is a higher and more comprehensive form, for, while in the mere pantheistic hypothesis, Eternity is for each of us, in the degree he shares in it, a necessary function of the whole, in the other alternative it is a vocation. We ask that the eternity of an instant should fill for us more and more all time. . . . It is difficult to see what the self-centred spiritual habits of the world of claims ever had to do with the deepest religious attitude, which is not merely that of reliance on absolute perfection, but implies also—as we may see in religious geniuses and mystics—grateful trust and adoration.

There is a lovely poem by Paul de la Garde, in which a soul, just freed from bodily bonds, is depicted as at last listening to the final harmonies of the melodies thatwere wont to reach her on earth only in a dim way, and is bidden to serve henceforth in unfading glory and unimpeded victory that Whole she already served in earthly days 'mid defeats and failures. The soul assents but dreads lest this should be all and the end of all:—

Nicht darum, o mein Gott, bin ich hierher gekommen:
nicht darum dient' ich dir in jenen andern Landen.
Du weisst ja freilich was zu meinem Frommen,

doch mache meine Hoffnung nicht zu Schanden.
Mein Herze brennt, dich endlich anzubeten
in Geist und Wahrheit, frei von allen Banden

. . . . . .

Sei Sonne du, ich will dein Leuchten sein,
und, von dir ungeschieden in die Weiten schweben.

Ich Ringes Gold, sei du mein Edelstein,
in mich fur alle Ewigkeit gebunden.
Dein Strahlenglanz, er gilt allein,
ich bin nur Träger, um deinem Blick gewunden.[1]

Thus Transcendence and life *within* and *with* the Eternal appear alone to minister to the soul s deepest thirst.

Many reserves may certainly be made on whether Prof. Varisco has succeeded in securing real distinctness to his monads and in avoiding their being a mere content for a single universal thinking function; and, in regard to his system as well as in regard to kindred attempts we fail perhaps to feel the strength some seem to find in the idea of the world as an impersonal and spiritual systematic unity; even in regard to the merely sensible world it seems that, if the world is a social organism of finite subjects, Prof. Stout is right in holding that at least the points of confluence of the presentational continuum of one monad with the presentational continuum of another monad would necessarily fall outside the experience of finite spirits and that continuity in such presentational material could only be assured through its being the object of an all-inclusive intuition. But with all that Varisco's philosophy strikes one as being, on the whole, like that of Prof. Ward; a very significant development in the right direction, if it be right to love system and, at the same time, to preserve instead of abolishing distinctions.

It is no easy reading; it does not appeal to the æsthetic sense and to literary enjoyment as Bergson's; nor does it subdue with clear classifications and distinctions as Croce's, nor wins us over by anything like Croce's not rarely deceptive clearness. And yet, even through the severely impersonal, mathematical coldness and bareness of the style in which it

[1] I owe my acquaintance with this poem to the kindness of Baron F. von Hügel.

has been couched, it awakens the soul to deep apprehensions, to depth of life which thirst for waters vainly or not easily found elsewhere, but which here, if not actually supplied, still give to the watching ear a sufficient hint of the nearness of their presence by means of some haunting murmur of their own.

V.—DISCUSSION.

DR. SCHILLER ON WILLIAM JAMES AND ON REALISM.

THE most important question raised by Dr. Schiller in our discussion of his review of my *Present Philosophical Tendencies*[1] is the interpretation of the philosophy of William James, but I am going to improve this opportunity of replying briefly to his criticism of realism and of my treatment of pragmatism.

I.

Dr. Schiller objects in the first place to my belief that the issue between realism and idealism is "important". It should first be proved, he suggests, "that either thesis is *worth proving*".[2] I might retort that before discussing this question of importance we should first prove that *it* is important. But I should fear that this sort of pragmatic retreat might remove us quite hopelessly from the previous question. I propose therefore that we allow the question of importance to take care of itself; and that meanwhile we endeavour to ascertain certain questions of fact or probability concerning the relations of a mind and the object with which it is cognitively engaged. If Dr. Schiller will agree with my conclusions, I am willing to risk their importance. If he dissents I should be glad to know just why, point for point, chapter and verse. If he regards my arguments as too unimportant to examine I shall feel diminished but not refuted.

I arrived at a view which I call realism by discovering, as I thought, that the prevailing philosophy, known as idealism, was incorrectly maintaining as its central thesis the necessity and universality for things of their relation to an apprehending, experiencing, or cognising mind. I desire to argue with Dr. Schiller or any philosopher who will do me the honour, *the merits of this question*. The prominence in my writings of discussions of "the ego-centric predicament," is due to the fact that a certain attempt to argue from it seems to me to be the most common error committed by idealists and "correlationists" like Dr. Schiller. I am sorry that the phrase offends Dr. Schiller's taste for monosyllables. I adopted it because it was as descriptive a phrase as I could find.

[1] *Cf.* Nos. 86, 88, 91.

[2] MIND, No. 91, p. 387.

Dr. Schiller now furnishes me with several new examples of the error in question. "Why should not the methodological (*i.e.* pragmatic) reality be the only reality that exists? It is the only reality we can know we have, or can use in any science."[1] "All the 'realities' we talk and dispute about seem manifestly to emerge from processes of cognition and to be established in their status by being discriminated from the unrealities and illusions with which they were at first associated and confused."[2] Or, better still, consider the following passage: "Now as Professor Perry admits (as I understand him) that *our* reals are *known* reals, why should he continue to conceive their inevitable relation to a knower as a disparagement and a taint". I admit that our reals are known reals, because I suppose that we mean by 'our reals' simply known reals. The question is whether our reals, or known reals, require to be such in order to be reals, and this Dr. Schiller appears to think follows from the mere synonymity of the adjectives "our" and "known".

These are attempts both to exploit a redundancy, and to reach conclusions about reality from the fact that we are hampered in our observation of it. They commit the error of construing some constant characteristic supplied by the act of study itself, as a necessary feature of the thing studied. It would be as reasonable for me to conclude that a language must be intelligible to me in order to be a language at all, or that a star of the eighth magnitude must be seen through a telescope, or that chromosomes must be stained in order to exist. It is an elementary maxim of knowledge that all such conditions of observation must be eliminated or discounted to avoid confusion with the nature of the thing observed. The simplest case of such a condition of observation is the *act* of observation itself. And in so far as the relation to mind is thus merely a condition of observation, it must be discounted. This leaves open the question as to whether there is or is not a logical or causal connexion between the thing observed and the observing process. The Martian canals *may* be in the telescope, or the staining may create the cell body. But such a fact must be established on other grounds than that of their mere association in the operation of observation. Things generally *may* be created or conditioned by the human conscious approach to them. But if so this cannot be argued from the fact that such condition is supplied every time one tries to test the question. In so far as *that* consideration is concerned the association is accidental. To establish anything more it would be necessary to show that the relation in question is causal or logical. One would have to produce evidence that things in general are caused by the agency or operation called mind, or that they somehow imply it *a priori*. So far as I know, no evidence of this sort has been offered except for a limited class

[1] MIND, No. 91, p. 390. [2] *Ibid.*, p. 391.

of things such as illusions or secondary qualities. If such evidence were conclusive it would of course at most establish a dualism in which the thesis of universal dependence on mind was definitely abandoned.

In asserting that the ego-centric predicament was "one of the most important original discoveries that philosophy had made" I had meant to be mildly ironical at the expense of philosophy. I had not expected an author of *Mind!* to take me quite so seriously. But let me hasten to explain that I do not think that *original discoveries* are common in philosophy; and that in this case the discovery is in fact one that serves no purpose except in so far as it is important for critical purposes to detect a source of confusion. According to Dr. Schiller "*it seems to follow*" from the non-evidential character of the ego-centric predicament, "that no evidence for a strictly transcendent reality can be obtained, and that such realisms as refuse to live without one are doomed to irrationality".[1] According to my opinion, expressly stated by me and wholly ignored by Dr. Schiller, *nothing* follows, except that we must look for evidence elsewhere. That evidence I find by a study of the actual relation between things and the knowing or experiencing of them in order to see whether or not the relation be one of causal or logical necessity. I conclude that the relation is neither, but is on the contrary such as to leave the thing known or experienced "independent" of that circumstance. I had hoped to earn Dr. Schiller's approval by a painstaking effort to explain just what I meant by "independence".[2] For he had repeatedly complained that the term had been left undefined. But it now appears that he *doesn't* want it defined. It is "one of those terms which are most useful when their meaning can be made to vary as required"![3] At the same time he objects to my definition of independence, on the ground that I have not proved that it may not be an "unrecognised" form of dependence! It is putting it very mildly to say that such objections are unprofitable. Dr. Schiller neither contributes to the clarification of the meaning of the term dependence, nor does he urge any objections to the arguments which I have formulated with the aid of my own definition.

For the new realism the conception of independence is of course crucial, because this doctrine aims to show that the actual relation of things to the awareness of them is not a conditioning or creating relation. I am glad to see that Dr. Schiller has at least temporarily left off saying that realism wishes to assert "unknowable realities". But he now falls foul of the term "transcendent," and allows his fancy to speculate concerning the relation between the "'immanent' real" and its "'transcendent' double".[4] Nothing of course could be more irrelevant to a view which repeatedly and

[1] MIND, No. 91, p. 388. (Italics mine).
[2] *The New Realism*, II.
[3] MIND, No. 91, p. 390.
[4] *Ibid.*, p. 391.

explicitly asserts its cardinal principle is "the independence of the immanent".[1] If Dr. Schiller means by "transcendent" that which is not or cannot be immediately before the mind, then he should not use the term at all in formulating the doctrine of the American neo-realists. I at least have meant by the transcendent that which is independent of the relation to cognising or experiencing mind, whether it does in fact sustain that relation or not. If the *term* offends I cheerfully withdraw it; the doctrine is clear in any case.

Dr. Schiller asks me to argue in favour of my conviction "that knowing is inherently 'subjectivistic' and that to view things 'knowledge-wise' forever debars one from recognising 'reality' in any sense".[2] I do not recognise this "conviction" as one that I ever for a moment entertained. There is I should suppose a rather obvious difference between *knowing* and *viewing things knowledge-wise*. The former is not subjectivistic, because subjectivism is an opinion *about* knowing. To views things knowledge-wise, on the other hand, inclines the mind to the view that the cognitive angle or relationship is essential to the things. A similar danger would lie in the habit of viewing things Schiller-wise or Perry-wise. A view that regards the relation to a subject as essential to the thing so related, or as a *conditio sine qua non* of existence, is "subjectivistic". Dr. Schiller's "correlation" theory seems to me to be such a view. Is the correlation a necessity, or an accident? Before one can proceed to interpret reality in terms of this relation one must know. I have set forth reasons for thinking it to be an accident; and I should like Dr. Schiller's reasons for thinking it a necessity. I cannot accept Dr. Schiller's "pragmatic realism" or "experimental idealism," or "ethical idealism," simply because it seems to me to be based on a false view of this relation.

The special difficulties connected with illusions, hallucinations and errors do not seem to me to be decisive (1) because these difficulties would at most lead one to a differential or dualistic view, in which one would recognise certain peculiar *exceptions* to the rule that what is known is independent of that fact; (2) because it seems to me that these difficulties can be and have been met, consistently with general realistic premises, by various contemporary realists, such as Holt, Russell, Montague, Nunn and Meinong; (3) because the really empirical and hopeful work in this field seems to me to be carried on by writers of this general type and to be conditioned by general realistic presuppositions.

II.

Dr. Schiller's objections to my interpretation of pragmatism converge upon my distinction between the theoretic interest and

[1] *Present Philosophical Tendencies*, p. 363.
[2] MIND, No. 91, p. 391.

other interests. I have insisted that truth is determined by the former and not by the latter. I have not denied that "psychological interest forms the common measure of 'theory' and 'practice,'"[1] but I have denied that this resultant value judged by the totality of interests was the same as that special value which we name "truth". I should say the same of beauty, or rarity, or price, or health, or popularity, or success in polemics, or any other special value. I do not deny that these values compete, but insist that their survival value, determined competitively, is a different thing from the several specific values themselves. It is possible that a beautiful object should be eclipsed and forgotten in the pressure of military or economic necessity. It would not then have become less beautiful; but one would be compelled to deplore the decline in the general human emphasis on beauty. Similarly a belief might become so dull or so painful as to be put aside for more sprightly or cheerful beliefs, without in the least derogating from the superiority of the first belief in respect of its theoretic function, such as that of satisfying curiosity or enabling one to anticipate sensible experience. In that case one would be compelled to deplore the fact that men had come to care more for their amusement than for reality. Or philosophers might care more for victory in polemics than for, let us say, ascertaining the nature of consciousness. The two interests undoubtedly compete, and it may often happen that the first proves stronger than the second. But in that case unfortunately it is the value that does not survive that is truth.

III.

The question of the interpretation of James is too important and too complex to be disposed of in a controversial note of this sort. But it is time at least to open the attack upon the inadequate and slovenly versions of James that Dr. Schiller and his followers have recently put forth.

Dr. Schiller does not hesitate to charge me with reading my own realism "into, and out of, James's works". But I have at least read James's works, and have made some effort to relate my conclusions to the available evidence. Dr. Schiller seems to rely on the merits of apostolic succession. So far as I know, none of the English admirers of James has made any serious attempt to expound his philosophy in the light of *all* his writings, and with anything approaching justice to his marvellous versatility and many-sideness.[2] There seems to be a tendency to believe that the philosophy of James amounts to no more than the blurring of all distinctions by a hearty daub of Bergsonian intuition.

[1] MIND, No. 91, p. 393.

[2] I am especially struck with the inadequacy of Captain Knox's book called *The Philosophy of William James* (*cf.* below).

Let us consider the single question of "radical empiricism," since here at least there are certain glaring errors of fact that require instant correction. The first of the essays which James himself grouped under this title is the essay named "Does Consciousness Exist?" In order to settle the question of the relation between James and his "followers," Dr. Schiller says that "it may ultimately become necessary to go critically into the meaning of this one paper and of Professor Perry's interpretation of it".[1] If Dr. Schiller had made up his mind to go into this matter before rather than after he wrote upon it, he would have avoided errors that are scarcely excusable even in a follower.

In the first place "this one paper" does not, as he implies, stand by itself. Of the eleven other essays reprinted in the volume entitled *Essays in Radical Empiricism, ten* refer explicitly to "Does Consciousness Exist?" and in such a manner as to make it clear that this is the first and fundamental essay in a *series*. Let me cite a few of these references. "In an article in this *Journal* entitled 'Does Consciousness Exist?' I have tried to show that when we call an experience 'conscious,' that does not mean that it is suffused throughout with a peculiar modality of being ('psychic' being) . . . but rather that it stands in certain determinate relations to other portions of experience extraneous to itself."[2] In "The Place of Affectional Facts in a World of Pure Experience" we read: "In opposition to this dualistic philosophy, I tried in a recent article in this *Journal*, to show that thoughts and things are absolutely homogeneous as to their material, and that their opposition is only one of relation and of function. . . . For the right understanding of what follows, I shall have to presuppose that the reader will have read that earlier article;" and the author adds in a footnote: "It will be better still if he shall have also read the article entitled 'A World of Pure Experience,' which follows that one and develops his ideas still farther".[3] In "La Notion de Conscience" James writes "Cette communication est le resumé, forcément tres condensé, de vues que l'auteur a exposées au cours de ces derniers mois, en une série d'articles publiés dans le *Journal of Philosophy, Psychology and Scientific Methods*, 1904 et 1905".[4] These are from many cross-references, too numerous to quote.[5] They establish beyond doubt the fact that it may "ultimately become necessary" for Dr.

[1] MIND, No. 91, p. 394.

[2] Quoted from "A World of Pure Experience," *Jour. of Phil. Psych. and Sc. Methods*, Vol. II. (1905), p. 176. *Essays in Radical Empiricism*, p. 123.

[3] *Journal of Phil.*, Vol. II. (1905), p. 281; *Essays in Radical Empiricism*, p. 137.

[4] *Essays in Radical Empiricism*, p. 206.

[5] *Cf.* also, *ibid.*, pp. 53-54, 105, 124, 138-139, 143, 152, 169, 184, 195, 196-197, 259.

Schiller "to go critically into the meaning" of this whole volume of essays.

Henceforth we should refer, then, not to "this essay" but to "*these essays*". Now as to the question of their date. I am glad to be able to testify that Dr. Schiller is correct in saying that these essays were published in 1904 and 1905, and therefore before *Pragmatism*, and *The Meaning of Truth*. He might have added also *The Pluralistic Universe*, and *Some Problems of Philosophy*. But it is ridiculous to say that they constitute "a very tentative and comparatively early work of James".[1] It would be sufficient to quote James's statement near the opening of the first essay: "For twenty years past I have mistrusted 'consciousness' as an entity; for seven or eight years past I have suggested its non-existence to my students, and tried to give them its pragmatic equivalent in realities of experience. It seems to me that the hour is ripe for it to be openly and universally discarded."[2] This does not sound either "tentative" or "comparatively early"! But the matter is quite beyond dispute inasmuch as Prof. James himself reprinted various references to these essays in his own later writings. Dr. Schiller suggests that it is "more probable . . . that this essay ('Does Consciousness Exist?') represents an experiment in thought that was not persevered in".[3] Dr. Schiller's conjectures are quite gratuitous. Approximately one-half of the second essay, "A World of Pure Experience," was reprinted in *The Meaning of Truth* (1909) under the title of "The Relation between Knower and Known". In this extract James refers the reader to the essay "Does Consciousness Exist?" for an account of that kind of relation between knower and known which obtains in perception, when knower and known are "the self-same piece of experience taken over in different contexts".[4] In this volume James also reprinted "The Essence of Humanism," containing the following passage: "They (*i.e.* knower and object in the case of sense-perception) must simply exist as so many ultimate *thats* or facts of being, in the first instance; and then, as a secondary complication, and without doubling up its entitative singleness, any one and the same *that* must figure alternately as a thing known and as a knowledge of the thing, by reason of two divergent kinds of context into which, in the general course of experience, it gets woven". To this he appends the note (possibly having Dr. Schiller in mind): "This statement is probably excessively obscure to anyone who has not read my two articles, 'Does Consciousness Exist?' and 'A World of Pure Experience'".[5] The Article "A World of Pure Experience" *as a whole* is recommended to the reader in *A Pluralistic Universe* (1909) for a

[1] MIND, No. 91, p. 394.
[2] *Essays in Radical Empiricism*, p. 3.
[3] MIND, No. 91, p. 394.
[4] *The Meaning of Truth*, p. 103.
[5] *Ibid.*, p. 127.

'radically empiricist' account of conjunctive relations.[1] In the same volume he reprinted "The Thing and Its Relations" and "The Experience of Activity," retaining the reference in these essays to the first two.[2] Of these references let me quote two. Referring to his treatment of "the Self" he writes "I sought to show that there is no direct evidence that we feel the activity of an inner spiritual agent as such (I should now say the activity of 'consciousness' as such, see my paper 'Does Consciousness Exist?')"[3] Again, "Let me not be told that this contradicts a former article of mine, 'Does Consciousness Exist?' . . . in which it was said that while 'thoughts' and 'things' have the same natures, the natures work energetically on each other in the things, . . . but not in the thoughts".[4]

So much for questions of textual fact that Dr. Schiller could easily have ascertained for himself.[5] They would perhaps be unimportant if the neglect of them did not lead writers like Dr. Schiller to a very misleading neglect of the doctrine of radical empiricism, and to a loose merging of James and Bergson, that is both historically inaccurate and disparaging to James.[6] It is well

[1] *A Pluralistic Universe*, pp. 280, 343.

[2] *Ibid.*, pp. 347-348, 353, 379, 390.

[3] *Ibid.*, p. 379.

[4] *Ibid.*, p. 390. The "Experience of Activity" from which these two citations are made was evidently the basis of one of the last passages which James wrote, the unfinished account of "Novelty and Causation" in *Some Problems of Philosophy*. A paragraph is extracted from it and the reader is referred to the whole essay. *Cf. Some Problems of Philosophy*, pp. 212, 219.

[5] I am assuming that it is too much to ask Dr. Schiller and Captain Knox to read the Preface to the *Essays in Radical Empiricism*, or to remember what is recorded there, when they are referring to the book. An examination of the Preface might have obviated this discussion altogether. In any case Dr. Schiller might have suppressed his remark that the "California Address" was "most strangely and inconveniently omitted from the volume" had he read that another volume containing miscellaneous essays was contemplated, the *Radical Empiricism* volume being exclusively devoted to essays bearing explicitly and systematically on that topic. And Captain Knox might have avoided printing as incorrect a statement, in word and in implied meaning, as has recently come from a reputable scholar. He says of *Essays in Radical Empiricism*, "This contains the remainder of James's occasional articles, ranging from 1884 to 1905, but does *not* represent his latest views" (*Philosophy of William James*, p. ix). Now, first, the volume contains *less than half* of the remainder of the articles not yet published in book form. Second, the articles are *not* "occasional" but excepting one or possibly two, constitute a *series* of *interrelated* articles. Third, they do *not* "range from 1884 to 1905," but are all published in 1904-1907, except the last which was published in 1884. Finally, the statement that the volume "does not represent his (James's) latest views" is either ambiguous, or, if it means that James did not hold these views at the end of his life, entirely baseless and false.

[6] *Cf.* a timely and careful article by H. M. Kallen, "James, Bergson and Traditional Metaphysics," MIND, No. 90.

known, at least on this side of the Atlantic, that in August, 1909, James wrote on pragmatism as follows: "I am interested in another doctrine in philosophy to which I give the name of radical empiricism, and it seems to me that the establishment of the pragmatist theory of truth is a step of first-rate importance in making radical empiricism prevail".[1] He proceeds to summarise the doctrine as (1) the "postulate" that philosophers shall confine their attention to the experienceable; (2) the "statement of fact" that conjunctive relations are matters of direct particular experience; (3) the "generalised" conclusion that "the parts of experience hold together from next to next by relations that are themselves parts of experience". The *Essays in Radical Empiricism* contain the most patient and rigorous examination of these conceptions that he was spared to give. He refers to them at the culmination of his discussion of "The Continuity of Experience" in *A Pluralistic Universe*, where after his characteristic eulogy of Bergson as the deliverer from intellectualism, he takes up again the thread of his own independent reasoning.[2] It is in these essays that one finds the key to his *pluralistic* universe, to his notion of the world as a *collection* or *concatenated union*.[3]

James is not to be summed up in this or in any other paragraph, nor does his philosophical work consist in any *aperçu* which Bergson has caused to "blossom in the metaphysical sphere".[4] James's genius for introspective observation and description has been generally recognised. His swift transforming insights, the extraordinary downrightness of his unpedantic mind, his sympathy and contagious enthusiasm, the instinctive rightness of his spontaneous or chivalrous beliefs,—these philosophical gifts have received something of the praise which they merit. But there is an impression in some quarters to the effect that James was incapable of rigorous technical philosophical analysis. This is largely due to the fact that the most widely known of his later writings were composed as semi-public lectures. James was too much of an artist to write for a popular audience what he might write for his philosophical colleagues. In any case the *Essays in Radical Empiricism*, together with *The Meaning of Truth*, demonstrate that James could reason as closely, analyse as exactly, wrestle with philosophical problems as patiently as the best of his critics who wrote more dully. They represent James as he was in the class-room and in the serious business of discussion. For this reason if for no other it would be absurd to overlook these essays, or to slight them. To relieve one's doubts, to get an answer to one's objections, or a clarification of terms, one is compelled to turn from *A Pluralistic Universe* to these essays, just as one is compelled to turn from *Pragmatism* to *The Meaning of Truth*.

[1] *Meaning of Truth*, p. xii.
[2] *A Pluralistic Universe*, p. 280.
[3] *Cf.* H. M. Kallen, *op. cit.*
[4] Schiller, MIND, No. 91, p. 395.

As to James's relation to Bergson, it is well to remember that if James could possibly do so he invariably gave some one else the credit for his ideas. He constantly magnified the good he saw in others and exaggerated his agreement. His generosity should not be exploited in order to identify him with others. It should rather be the business of his commentators to search out what is distinctive or peculiar in his view. He is not to be lumped with realism, anti-intellectualism, evolutionism, or any other familiar tendency. What is needed, for the present at least, is exegesis and the systematic collection of his many views. I am sure that critics have much to learn from him before rejecting him; and there is evidence to show that some at least of his "followers" have much to learn before they appropriate him as their own.

RALPH BARTON PERRY.

VI.—CRITICAL NOTICES.

Our Knowledge of the External World. By BERTRAND RUSSELL. Open Court Co. Pp. ix, 245.

THIS book—Mr. Russell's Lowell Lectures—though intentionally somewhat popular in tone, contains some most important and interesting contributions to philosophy. Its scope is very accurately conveyed by its complete title; Mr. Russell deals with our knowledge of the external world 'as a field for scientific method in philosophy'.

The first chapter deals with Current Tendencies; it says something about Pragmatism, Absolute Idealism, and Bergson; and it tries to delimit the sphere of philosophy. If philosophy is to be a genuine separate science it must contain propositions about matters not dealt with in other sciences, and these propositions must be proved or rendered probable by the methods common to all science and to the sound reasonings of daily life. The difference between philosophy and the natural sciences (*e.g.* physics) is not that it deals with a more elevated subject matter, nor that it uses some superior method of argument, but that it consists of propositions about much more abstract entities. Again, like all genuine science (including ethics itself), philosophy must become what it has hardly ever yet been—'ethically neutral'. When philosophy is defined in this way three important results follow: (1) It can never conflict with any discovery of natural science or with any judgment of value; for propositions about entirely distinct subject matters cannot conflict; (2) We see that a number of problems which have been supposed to be pre-eminently philosophical belong to the natural sciences, and, if answerable at all, must be answered by empirical investigation. Examples of such problems are the immortality of the soul and the existence of God; and (3) the essence of philosophy is seen to consist in logic, defined in a certain sense which Mr. Russell elaborates in his second chapter.

In this chapter Mr. Russell gives a very useful account of the main results of the logical studies of Frege, Peano, Dr. Whitehead, and himself, with acknowledgments of further developments and modifications made by Mr. Wittgenstein and not yet revealed to the profane vulgar. He reiterates his belief that the logical basis

of most absolute idealism is the erroneous view that all propositions ascribe qualities to subjects. Moreover he insists on the importance of asymmetrical relations and of polyadic relations; by means of the latter, as we know, he considers that the problem of erroneous judgment can be solved. For any extended knowledge we need to know two very different kinds of things: (1) atomic facts, and (2) forms. The first are most obviously supplied by sense-perception and are asserted in such propositions as 'this is red' and 'this is to the left of that'. The second are the subject matter of pure logic; they are *a priori* and they assert of certain 'forms' or propositional functions that they give true propositions whatever 'matter' be substituted for the variable in them (provided of course that the proper restrictions as to logical type are complied with). The knowledge of forms and of the general propositions about them is essential to all inference; the knowledge of atomic propositions is equally essential if we are to hook our logical implications on to the existent world, to assert our premises, and thus assert our conclusions by themselves. The great use of modern logic as against the traditional logic in philosophy is twofold: (1) It recognises an enormously greater number of primitive logical forms and thus sets free the logical imagination and provides the materials for an immense number of logical constructions to fit empirical facts, and (2) it enables us by means of the symbolic calculus to work out the results of our hypotheses much more fully and certainly than the ambiguity of words and the restricted apparatus of Aristotelian logic would allow. We no longer proceed in philosophy by gradually cutting out all possible explanations but one; we see that there is an immense number of logically valid explanations possible for almost anything, and we proceed to determine what is essential logically to them all.

The rest of the book, except the last chapter, consists in applying the methods and results of modern logic to the problem of the nature and reality of the external world. It divides into two parts. The first, contained in chapters iii. and iv., is an attempt to determine the relation between the world of sense-data and the world of physics with the fewest possible assumptions by means of the Principle of Abstraction; the second (chaps. v.-vii. inclusive) deals with the mathematical theory of infinity and continuity. The latter is of course comparatively well known to a certain number of persons, though evidently not to most philosophers out of Cambridge. It is valuable as presenting a clear and intelligible account of a somewhat difficult subject by one who is a complete master of it and himself a discoverer in it. The only new part is the little that has been called for by Bergsonian attacks on the mathematical doctrine of continuity and motion. These consist mainly of misunderstandings; but the amended Bergsonian doctrine that the mathematical theory is flawless but irrelevant to real motion was worth answering. The answer of course is to

distinguish between movement as a sense-datum and the movement constructed logically for the purposes of physics. Mr. Russell gives a physiological explanation of the sense-datum; but he is not content with this. He further points out that, even in perceived motion, what we must have is not something unitary and indivisible; but at each instant we perceive a slightly different extended motion. Thus we are again brought to a compact series, this time of sense-data. Of course, as Mr. Russell insists, two sense-data may differ and be proved to differ though they cannot be perceived to do so.

The most interesting part of the book to those who are already familiar with the mathematical doctrine of infinity and continuity will be chapters iii. and iv. In general we may say that they consist of an attempt to state phenomenalism in a logically satisfactory way by means of the notions and results of modern mathematical logic. In particular they make use of the Principle of Abstraction (which has proved so useful in the definition of cardinal and ordinal numbers and in the proof of existence-theorems for these) to define the space, time, and matter of physics as logical functions of sense-data, and their immediately given relations. Traditionally physical matter has been supposed to be inferred as the cause of sense-data, whilst the evidence for mathematical space and time has hardly been considered at all. Since any consistent logical function of actual sense-data must exist in the logical sense there can be no doubt of the existence of the space, time, and matter of physics if they can be exhibited as logical functions of actual sense-data. Whether they *also* exist in any other sense must remain an open question; Mr. Russell does not say exactly what this question means, but I think it means: Are there entities of the same logical type as sense-data, which have (apart from differences due to difference of type) qualities and relations with the same logical properties as those possessed by the functions of sense-data which fulfil the demands made by physics on its space, time, and matter?

Mr. Russell is not content with suggesting the possibility of defining the entities of physics in terms of sense-data, he proceeds to offer a tentative sketch of how this might be done. It does not profess to be complete, for it assumes both the sense-data of other people accepted on testimony, and possible sense-data; but Mr. Russell hopes, by introducing additional complications, to eliminate these and produce a purely solipsistic physics. His tentative theory (constructed to deal mainly with the data of sight) is roughly as follows. Each man's sense-data form an extended world and no sense-data are common to two private worlds. But there are correlations between similar sense-data in the various private worlds. A thing is the class of all the similar sense-data in all the private worlds. (We may compare Lotze's view that things are the laws of their states. The

superiority of Mr. Russell's theory is that he tells us much more carefully than Lotze what is meant by 'their' in this connexion.) The next task is to define a common space and a common time 'in' which these things shall be and 'in' which their changes shall take place. We construct a common space by taking each private world as a whole as one point in the new space; it is here that we have to introduce possible private worlds as well as our own and those which we know about by testimony. It is an empirical fact that the space so constructed has three dimensions. Next we notice that if we consider, *e.g.* all the private worlds which contain a round appearance of a penny and arrange them in an order in accordance with the sizes of the round sense-data they form a straight line in the common-space. Likewise all the private spaces which contain a straight appearance of the penny (*i.e.* as we say 'the penny viewed edgewise') constitute straight lines in the common space. And it is found that all these lines intersect each other when produced and intersect the line defined by the round sense-data at a common point in the common-space. This point of intersection is defined as 'the place where the penny is'. The particular private space in which there is a particular sense-datum of any shape which is a member of the class constituting the physical penny is called 'the place from where the penny has an appearance of this shape'. Physics is mainly interested in the places where things are, psychology is mainly interested in the places from which physical things have such and such an appearance.

The next task is to define the points of space themselves. Broadly speaking a point is defined as the class of all the sense-data containing the point. (When fully stated this definition is not circular.) Certain assumptions have to be made about sense-data in order to give to space the continuity which physics commonly ascribes to it. This way of looking at geometry has been carefully worked out by Dr. Whitehead and Prof. Huntington, and it is Dr. Whitehead's work which has inspired Mr. Russell to his attempted reconstruction of physics.

Finally a common temporal order for the states of things has to be constructed and here the effects of an intervening medium have to be interpreted in terms of the theory, and account has to be taken of the results that are summarised in the Theory of Relativity. When the common temporal order has been constructed it is a comparatively easy task to proceed to a further degree of abstraction and to define instants and their relations in terms of events and their relations. The logical apparatus needed for this has been constructed by Mr. Norbert Wiener in a very interesting paper in the *Cambridge Philosophical Transactions.* (It is unfortunate that, through a misprint in the present work, Mr. Wiener appears as *Wilner.*)

This, in the barest outline, is Mr. Russell's reconstruction of

physics. Whether it ultimately prove valid or not it is clear to me that it is of the most vital philosophical importance. It is hardly possible to attempt any criticism within the limits of a review; where I think further investigation is most needed is as to the grounds on which we classify together such varied appearances as a set of circles and a set of straight lines as the appearances of one penny, and yet classify several sets of round appearances as two different pennies. But I feel tolerably confident that any difficulties that may arise are difficulties of detail, and that, even if it be found necessary to introduce rather more ultimate assumption than Mr. Russell would like, he is on the right track.

The last chapter deals with Causation with especial reference to the problem of Free-Will. It is on the lines of Mr. Russell's paper in the *Proceedings of the Aristotelian Society*. Indeterminism remains a possibility, for there is no self-evident law that all events must have causes, when we are clear that causation means nothing but functional correlation. But there is no more reason for assuming indeterminism in human actions than in the physical world, and it is a fact that the general modes of reaction of well-known people to definite general types of situation can be foretold with about as much confidence as those of physical systems. In both cases if you insist on going into extreme detail your predictions may be falsified, and this *may* be due to the events in question obeying no law, though it may equally be due to our ignorance of the complete statement of the law.

C. D. Broad.

The Great Society. A Psychological Analysis. By Graham Wallas. London: Macmillan, 1914. Pp. xii, 406.

The author—perhaps it is his modesty—says that while he was writing this book he saw more clearly than before what it was about, and particularly its relation to his previous book—*Human Nature in Politics*. But I can scarcely conceive that he had not present in his mind, for some time before he began to write, a fairly shrewd conception as to its relation to his former book and indeed to psychological and political thought generally. Its genesis, as it appears to me, is explained by the following considerations, though I do not know that Mr. Wallas would accept this account.

Just as nineteenth century science claimed to reduce all knowledge to terms of itself, discarding and even vehemently denouncing as nescience what it could not thus embrace, so the growing analyses of sensation and the triumphs of psychology along the lower mental levels tended to explain all mental processes in terms of images and sensations and conative trends of the

satisfaction of our more fundamental and primary rather than of our higher and more civilised thoughts and impulses.

Mr. Wallas, in his previous book, pursued in detail the fundamental errors upon which the theories of modern democratic government were founded. Rational calculation of interest with the assumption that most men knew enough and were unbiassed enough to choose wisely for their State as well as for themselves (especially when compulsory education was put in force) must go the way of discredited beliefs; and the author did good service in the task of so discrediting them.

The whole psychological trend of modern thought has, indeed, undermined the assumption of the balanced, rational, far-seeing citizen. But, just as in the parallel case of Education, a full, and indeed, an enthusiastic adoption of a psychological method does not justify us in declaring that mental life is impossible to all except upon the lower levels; so a full recognition of the actual political make-up of human beings does not justify us in believing that there is no such thing as patient political thought, or that it is not worth our while to endeavour to organise for good the thoughtful elements in the State.

To follow the author through the detailed analyses by which he works is clearly impossible in the space of this review; but those aspects which are more specially concerned with Psychology must receive some attention.

No doubt, the phrase 'psycho-physical disposition' seems to postpone, if not to obviate, a decision as to the material or non-material basis of mental life; but I cannot say for myself that I have ever found it of much service; it has enabled some of us to wobble from side to side according as each seemed the better known, the psychical or the physiological; but it is very doubtful if we have not lost as much as we have gained; and the author definitely argues that, for social psychology, we need our facts to be projected on the same terminological plane.

Mr. Wallas, whilst admitting and indeed urging upon political philosophers generally the value of the psychological work already done by laboratory methods, reminds us that unimportant things will remain unimportant, however accurately we observe and measure them. Of course, when it was believed—I am not sure the belief is moribund—that mental life could be wholly constructed from sensations and images by a sort of synthesis, it was not unreasonable for a school of psychologists to ask us all to wait before attacking the problems of thought as such. Fortunately, psychology, without any departure from sound method, is itself beginning to attack the problem of the higher mental processes directly—the sensation-synthesis doctrine of mind is doomed, even upon experimental levels.

On his discussion of Instinct and Intelligence I shall say little. It has always seemed to me that the term Instinct brings with it,

in ordinary connotation, a non-individual sense, so to speak. Our instincts are common to us. But if that is so, many of the impulsive tendencies to action of men of initiative in art and science and social amelioration can by no means be regarded as instinctive. If they are so described, then, as I believe Mr. Wallas claims later on in his book, there are instincts towards thought in some of us which, however undesirable from the point of view of the gratification of many of our other instincts, can only be described as 'intelligent' without a gross perversion of common sense. But after, and indeed before, recent discussions, I was, and am tempted to doubt the distinction of instinctive and intelligent altogether, except for the roughest of classificatory purposes. Most, if not all, of the valuable distinctions involved could be made more definitely in other ways.

On the discussion on Habit I will make one suggestion. We do not, all of us, go on doing over and over again with greater ease and satisfaction what has become habitual. After a time we have had enough of that and take up the new with delight merely, it sometimes seems, because it is new. Every evolving life finds a progressive change of habits a necessity of its existence. This is doubtless what Mr. Wallas has in mind; but he gives the risky statement in support of his argument that work under fatigue may produce most progress in accuracy. I think he misinterprets James, who is emphasising the need for proper intervals of rest in his celebrated dictum that we learn to swim during the winter. Effort, despite fatigue, produces some improvement; but it does not produce the most in such conditions. Nor is it the 'natural' movements which are more difficult to acquire at first; though the 'unnatural' ones may be easier and probably more effective after they have once been acquired. But, in any case, this chapter is a stimulating criticism against any political or educational creed, founded on *mere* habituation.

In the chapter on Crowd-Psychology the author shows good reason for recasting many popular notions. For myself, I should say that, just as in Education we are trying to quantify and make definite how much is due to individual impulse, how much to sympathy, how much to imitation in any given function, so we must in politics. The bias of philosophers and psychologists for their own special brand of explanation must give place to something much more exact, much less general, and much more applicable to the complexes of reality.

But it is not, I think, merely by the intellectualist criticism (I use the word intellectualism in no necessary antagonism to pragmatism) of current psychological concepts that Mr. Wallas would have us judge his book as a contribution to modern science. It is on Thought and on the Organisation of Thought that he would have us fix our attention. Whether Thought is always stimulated by instincts and emotions or independently, there it is;

and no resolution of it into what it may have arisen out of settles the matter; we must deal with it directly.

It seems a little strange when, so far as I understand modern movements in psychology and education, a real methodology of thought in its relation to experiment is rapidly growing up, when recent workers habitually test their insight, or lack of insight, by carefully arranged experiment, not merely in laboratories but in the school and in the world, to find Mr. Wallas complaining that psychology lays all its stress on spontaneity; the published books will always be behind the best current practice; perhaps that is the explanation. In any case, the author renders a great service in setting out for us the conditions of useful thinking—would that municipal and other public authorities who really require thinking to be done by their officials would ponder over them; and further asks that we may nationally always have in mind that, without 'thought,' a people, however numerous, however strong in a military and naval sense, is not fully alive. More especially in modern States, when unearned increment becomes increasingly taxable, will it be necessary to find ways of providing suitable persons with the means and the leisure to think. Not only poets but all original persons must of necessity 'loaf and invite their souls'. And the author gives excellent suggestions toward what may be called the management and economy of thought.

There are here and there innuendos, at least, which suggest that the author believes current pragmatism to be against intellectualism in his sense. There are many pragmatisms; but I should have thought that the British variety, at any rate, lays stress, as as against metaphysical intellectualism, on the very aspects of the creation of knowledge with which Mr. Wallas is primarily concerned. I would make one suggestion as to what seems to me an omission—there is an emotional glow in thinking, not merely when 'a new planet swims into our ken,' but one which is involved in the inchoate activity of thought; vague, almost formless; tending to definition, yet undefined; which pervades the thinker when he sets out upon those quests for which he is congenitally fitted, and which, more diffused, more steady, though less momentarily intense, sustains him to the end. We *can* call this instinctive, if we like; but it makes instinct responsible for most original thought; and we ought scarcely to call it instinctive merely because it is unreasoned. This emotion of thought is present in most of us long before triumph or 'ordered beauty' is, if ever, achieved; indeed, achievement is no more than momentarily satisfying to any progressive life.

But Mr. Wallas's book is not merely 'a psychological analysis'. In the three concluding chapters he puts forward certain practical proposals. He spent some of the best years of his life in Educational Administration, and this gives weight to his suggestions which mere 'academism' could not bestow. He shows us how

our most cherished governmental institutions—parliaments and councils — are not really — to use his terminology — Thought-organisations, but rather Will-organisations: he points out to us what the 'high-official' can and has to do; not deploring him as an unpleasant necessity, but exalting him as a potent factor in Thought-organisation, though by no means unaware of his 'officialism'; from which, indeed, only the most vigorous-minded officials in actual touch with the lives affected by their decisions can escape: and he warns us that we are not doing enough, by seminar and discussion-class methods, to bring the aid of 'dialectic' to passive learning from lectures, books, and newspapers.

In the chapter on Will-organisation we are profitably reminded that the continued growth of Collectivism depends upon the efficiency of the machinery by which the collective Will is ascertained and enforced—the assumption being, for the moment, that there is a collective Will and that its related Thought-organisations are more or less satisfactory. For when voters are voting, not from national reasons, nor even for party reasons, but for an increase in their own pay, which may or may not be economically or biologically desirable, we are face to face with a real, perhaps the most real, difficulty of collectivism. Indeed, as the author points out, the extreme individualist and the out-and-out syndicalist both base their claims on property—*les extrêmes se touchent*. And, in the last chapter, the thesis is enforced that Happiness at work depends mainly—apart of course from merely biological considerations—on the size of the industrial unit and the methods of its supervision; and some suggestions are made to render the latter less mechanical.

I fear that this choppy 'notice' scarcely gives even an outline notion of Mr. Wallas's deeply interesting and valuable book. I have started several times to review it, but have found myself re-reading rather than reviewing—perhaps that constitutes one of its strongest recommendations, if I may be permitted an official phrase.

W. H. Winch.

Wilhelm Diltheys Gesammelte Schriften. II. Band. *Weltanschauung und Analyse des Menschen seit Renaissance und Reformation.* Leipzig und Berlin: Teubner, 1914. Pp. xii. + 528.

Dilthey's well-known *Einleitung in die Geisteswissenschaften*, a book which is hard to come by, dates from 1883. It was by no means the firstfruits of his literary activity. And brain and pen were continuously busy down to his death three years ago. Dilthey's unit of output was rather the essay than the book. Although what he wrote fell into its place in reference to an undertaking planned on the grand scale, nothing was exempt from

reconsideration. In one sense he completed nothing. The 'Introduction' itself will, we learn, be much augmented in this edition by insets and annotations from unpublished manuscripts. The volume now published—vol. ii. of the Collected Works—which consists mainly of monumental studies from the *Archiv*, may be regarded as a supplement to the more famous work. How closely it connects is intimated in the note on page vi. Yet its unity has been achieved posthumously. Dilthey had apparently designed to collect the scattered articles embodying his philosophical outlook. But the volume in which the task is fulfilled is yet to come. The *Jugendgeschichte Hegels* (1905), from which the newer conceptions of the course of the idealistic development derive their inspiration, will, we are told, find complementation in hitherto unpublished matter on Hegel of quite first-rate importance. Manuscript sources not drawn upon for the enrichment of the volumes containing previously printed work are to supply a whole volume of fresh material. And finally in a supplementary volume the literary studies *aus vier Jahrzehnten*—on Goethe and others—will be associated with further æsthetic writings. Seldom surely was editorial responsibility for Collected Works more severe.

For Dilthey was one of the great ones of his epoch. He was, as his editors claim, *Philosoph und Historiker zugleich*. Not a philosopher among historians and a historian among philosophers, but historian and philosopher both. The *Contaminatio* helps to give its characteristic quality to his writings and teachings. The wisdom and insight of the *Weltanschauung* are doubtless most important from the way in which it affected the direction and spirit of our author's historical studies and illumined his criticism. It is the historian, that is, of the development of the concepts that obtain in and rule the spiritual life of the modern world, that we could least afford to spare. But the philosophy is characteristic and gives to the historico-critical work much of its distinction. Dilthey's philosophic point of view belongs to the reaction against the great panlogist systems of the early nineteenth century. Spite of the aftermath which they were, as they are, still producing, they were something of a spent force in the Germany of his youth. As against a dialectical construction Dilthey claimed that we must stress the whole life of man. In the development of the spirit, religion as distinct from metaphysic plays at least as great a *rôle* as the latter. Side by side too with Greek intellectual-scientific speculation, the practical philosophy of the Roman, with its grounding in will, has lived on as an enduring force in the afterworld.

As regards *a* philosophy endued with finality Dilthey inclined to be sceptical. His attitude is that of Schiller's

Aber—die Philosophie hoff' Ich, soll ewig bestehn,

or the same author's famous

Die Weltgeschichte ist das Weltgericht.

What any one man can do is conditioned by his definite environment of time and place and atmosphere. He will apprehend one or more of the facets of the myriad-sided prism with some clearness. Let him under the limitations of this perspective make his several contribution to the unitary system. That system—*the* philosophy—he must fail to construe in its entirety. To bring to unity disparate categories, and such there are, is beyond the fetch of human capacity. Genius, however, sometimes adumbrates how their harmony may be conceived. This may be termed the essential metaphor of Dilthey's outlook. If we add his deep-seated conviction of the dynamic nature of the human experience which must be taken unmutilated as the object of inquiry, and his interest, not only in relation to Schleiermacher but continuously and throughout, in the religious problem as such, we have some at least of the dominant notes of what may be called the humanism of our author, *i.e.* of that anthropocentric outlook which finds in man and his spiritual manifestations the problem and the line of solution. In a broad sense of the word Dilthey was a great Humanist. The title of the present volume of the Collected Works, reflected from the titles of the first and last treatises that it includes, indicates the frame of mind in which Dilthey confronted ultimate problems.

To the philosopher it is of course the developing thought that is all important. Estrangement from ideas, such as characterises our bourgeois society, Dilthey condemns as a certain sign of poverty of spirit, and in reference to Buckle's tendency to find in an emphasising of the sceptical note the mark of progress, he remarks that the constructive work of a new era calls before all things for a stable attitude of the intelligence. And the religious life likewise will never be without dogma. On the other hand dogma may be a fresh crystallisation upon the dissolution of older forms. The development, then, of concrete thought prompts and requires the methods of the historian. It is for this reason that much of Dilthey's most typical work is of a kind to which the nearest parallel among English writers is perhaps afforded by the late Lord Acton in his more philosophical flights. The marked difference of general outlook only serves to set in relief the likeness. There is the same lavish learning subordinated to the same firm handling of dynamic ideas. There is too the same breadth of appreciation freed from all necessity of recognising limits of time or nationality.

Does modern history begin with the call of Abraham or with the fall of the angels? Does ancient history close with the French Revolution or with the sounding of the last trump? Dilthey at least need have no fear as to his powers of satisfying Freeman's ideals. Apart from the *Einleitung*, proof of our author's backward stretch is altogether abundant also in the present volume. Is it Spinoza's classical learning that is in question, or Macchiavelli's

debt to Polybius, or Melanchthon's borrowings from Cicero, Dilthey is ready with chapter and verse. The tracing of the persistent influence of the Stoa on the 'rationalism' of the post-Renascence development is exhaustive. The elucidation of the continuity of modern pantheism with the ancient systems is elaborate. The sweep, however, of Dilthey's survey of non-German thought in the modern world is more arresting still. Of English writers Hobbes, perhaps, and notably Shaftesbury come triumphantly by their own. Shaftesbury seems to have influenced Goethe as much as he influenced Lessing, and the wealth of parallels from Goethe and Herder to the pronouncements of the Englishman supplies an altogether new standard from which to judge him. And if Bacon is treated almost wholly from the side of the Essays, and with reference mainly to the seventeenth century analysis of the passions—the Advancement of Learning is styled an English edition of the *de Augmentis*, Bacon's works are dated 1605-20, and he is credited with three inductive methods, so that here surely our author nods—Hobbes and his affinities receive, with an eminently judicious use of Tönnies' monograph, excellent and sympathetic treatment. Not only the cleavage in Cartesian dualism, thinks Dilthey, but the failure of the philosophy of the *Conatus* to account for the passions as mental motions, may have prompted the development of the thought of parallelism in Spinoza. Hobbes too had drunk from the Stoic sources as well as from Telesio, and he as well as Telesio affected Spinoza's 'Stoicism'. And if Languet anticipated Hobbes in the advocacy of the geometric method—Dilthey's learning is often somewhat resurrectionist—it is an acute point that jurisprudence had familiarised Hobbes with the deductive method before Euclid supplied him merely with a model. A further point in regard to Hobbes is made in the attribution to him rather than to Gassendi of the mediation between the method and mechanical concepts of ancient atomism and those of eighteenth century materialism. So too Dilthey is aware of Falkland and Chillingworth, has dipped into Locke's commentaries on St. Paul's epistles (!), and has analysed the citations of Herbert of Cherbury, and can aver that characteristically the name of the Florentine Puccius, who alone had anticipated Herbert's formula of natural instinct, is not to be found there. Among the Italians too Dilthey is at home. On Bruno he is almost at his best.[1] Petrarch and Macchiavelli receive a handling only less striking. Of the French even Charron comes in for notice. And the Dutch writers, too, find appreciation, Coornhert, humanist and Christian, with his debt to Cicero and Seneca, and his plea for mutual toleration among

[1] The first section on Bruno was published in 1893, under title, *Giordano Bruno and Spinoza, I.* The second is from hitherto unpublished manuscript. The Essay on Pantheism, in which it is carried substantially further, bears date 1900, while the editors have still to add a note (p. 521) on Bruno and Shaftesbury, summarising further work.

the sects,—a political need as Dilthey notes rather than an ecclesiastical aspiration,—and Oldenbarneveldt, with many others. Yet there is no parade of cosmopolitanism without root in nationality. In the handling of German material range and penetration are alike great. Sebastian Franck, Hutten and Pirkheimer find place beside more famous names. The Erfurt humanists and the letters of Conrad Mudt [1] receive due appreciation. In fine the setting in detail is no less effective than the presentation of the central figures in the pageant of Teutonic development.

While it is far more natural to quote Dilthey for facts and for judgments than for striking phrases or outstanding paragraphs, his style is an effective one. Witness the *Luther Kam* (p. 53) inserted between two long paragraphs, or the characteristic passage on the Limits of the Reformation (pp. 71 *sqq.*). It is however toned to his scientific conception of historical work. Of rarer single flashes perhaps *Das römische Christentum war regimental* (p. 58), or 'Every great historical cause is *einheitlich*, but it is not therefore *einfach*' may be offered as typical. Or the striking thought of the Multiple Consequences of a system, so that, *e.g.*, points in Cartesianism necessarily dropped by Spinoza are taken up again by Kant and others. And again the raising of phrases like 'transcendental theology' and 'the panentheism of the mystic' to the dignity of legal tender in the world of thought.

Not unnaturally the protagonists of the reformation occupy considerable space in Dilthey's scheme. Luther dominated the men of his time, he declares, *weil sie ihr potenziertes Selbst in ihm zu erkennen glaubten* (p. 55). It is not Luther, however, nor Calvin, nor Zwingli, though the connexion of the latter's *de providentia* with the Stoic doctrines of immanence and determinism is pursued with vigour, but rather Melanchthon who receives most sympathy and understanding. Dilthey's work on this thinker will not need to be done again. He is aware of his faults (p. 168 n.), and of the sources for his most characteristic doctrines (notably p. 176 n.), but he recognises the range of his influence—influence is a point which has already led Dilthey to couple Reuchlin with Erasmus—and despite of the shallowness of much of the man's teaching sees that Melancthon's dialectic is still a link in the chain 'from Aristotle by way of St. Thomas to Christian Wolff'. And Dilthey would forgive much to an exponent of the doctrine of the inborn light whose dependence on Cicero is so manifest.

When Dilthey speaks of the 'natural' system of the moral sciences in the seventeenth century, he uses the word 'natural' as it is used in such phrases as 'natural theology'. Thus understood, the continuity with the 'autonomy' of the next essay is obvious, and the 'anthropological' bearing of both, in an eighteenth-century use of the word, follows simply enough. As we advance beyond

[1] Dilthey cites: Tu, Iove, *i.e.*, optimo maximo deo propitio, contemne deos minutos. Quum Iovem nomino Christum intellego.

the field in which Dilthey's learning is revealing to us bright particular stars who have never, or hardly ever, flashed within our range, introducing us to Flacius, for example, and to such conceptions as 'biblical rhetoric' (p. 117 n.), his thought seems to nucleate itself in certain ganglia. Whatever bears on the key-notes to be found in Spinoza, *e.g.*, is treated with lavish care. In view of the tendency to explain so much in Spinoza from Jewish sources and from the development that culminated in Averrhoes, it is instructive to see what Dilthey accomplishes with the Stoic tradition, and Hobbes and Telesio, while the line of evolution suggested certainly finds support in the story of the influences that are at work in Spinoza's political philosophy. Another nucleus is the rationalistic core in a theological upgrowth of wide ramifications. The significance of Socinianism, for instance, calls for attention. The clue to it is the need for Protestant Christianity to justify itself at the bar of humanist rationalism, and the conviction that it must purify itself therefore as a preparatory to its apologetics.

A fascinating feature of Dilthey's constructions is his use of the biography of his protagonists to throw light on their personality and thought. That this is often episodic only, following out all the clues to elucidate a single light, makes little difference to its effectiveness. The indications as to Melanchthon's life, the references to Bruno's sojourn in England, the vigour with which the Frau von Stein's manuscript is analysed to throw light on the relation of Goethe to Spinoza, are cases in point. Sometimes brief enough, sometimes detailed but covering a period of relatively narrow limits, they always are contributory to the required picture.

If we realise that this volume is more disjointed in character than some at least of the remainder can possibly be, that it represents very characteristically the surface desultoriness of composition on the part of our author, as well as his firm hold upon the main threads of a great plan, Baconian or Liebnizian in design, we may well congratulate ourselves on the menu according to which Dilthey's editors undertake to regale us in the future, as upon this present feast.

HERBERT W. BLUNT.

VII.—NEW BOOKS.

Froebel as a Pioneer in Modern Psychology. By E. R. Murray. George Philip & Son, Ltd., 1915. Pp. 230.

Miss E. R. Murray's little book on *Froebel as a Pioneer in Modern Psychology* deserves attention, for it comes at a time when the great educator is under a cloud. Of late years it has been the fashion in some quarters to speak slightingly of Froebel's work and power. His mysticism is often referred to with a sneer, and he is apt to be regarded by some of the younger generation of teachers as antiquated and little worth troubling about. For them the Dottoressa Montessori occupies the stage, and they look upon Froebel as a star long since departed. Miss Murray has set herself the task of helping Froebel to come to his own. She desires to prove that even in the light of our best and most modern psychologists, he does not stand eclipsed, but rather has anticipated all the most important of their views.

The plan of the book is to take one by one the modern views on the analysis of Mind, on Will, on the gradual evolution of Self-consciousness, on Attention and Instinct, and to show that Froebel has anticipated the conclusions of our foremost psychologists, of Dr. Ward, of Prof. Stout, of Mr. MacDougal and various American writers.

The task set is admirably performed. Parallel passages are brought before us of the most striking similarity, passages that prove Froebel to be greatly before his age, and in really remarkable accordance with our present-day leaders. *E.g.* in dealing with the gradual development of will from early mental activity Prof. Stout tells us that it is of the essence of conation to seek its own satisfaction, and this is only possible as the conation becomes definite. "Blind craving gives place to open-eyed desire," as the original conation tends to define itself. So, "the gradual acquisition of knowledge through experience is but another expression for the process whereby the blind craving becomes more distinct and more differentiated". This is compared with a passage in Froebel's paper on "Movement Plays". "All outer activity of the child has its ultimate and distinctive foundation in his inmost nature and life. The deepest craving of this inner activity is to behold itself mirrored in some outward object. In and through such representation the child himself grasps and perceives the nature, direction and aim of his own activity, and learns also further to regulate and determine his life, that is his activity according to these outward phenomena." Froebel's conclusion that only as this unconscious or blind craving for action is satisfied does the child become conscious of the nature, direction and ends of his own activity, is but another way of stating Prof. Stout's conclusion that the grouping of cognition, which is the gradual acquirement of knowledge through experience, is "the way in which the conation itself grows and develops". (See pp. 27, 28.)

It is to Dr. Ward that we owe the wonderfully clear picture of the dawn of consciousness, the gradual development of "a total presentation

having the character of one general continuum in which differences are latent," but even here Miss Murray points out that Froebel probably avoided the "mental obscurity" of his contemporaries because he held somewhat the same view as his successors. "Although in itself made up of the same objects and of the same organisation, the external world," he writes, "comes to the child at first, out of its void, as it were, in misty, formless indistinctness, in chaotic confusion; even the child and the outer world merge into one another."

The chapter on Instincts is particularly interesting, as Froebel is here brought into touch with Mr. MacDougal as well as Mr. Kirkpatrick and Mr. Ebby.

Froebel is found to have admitted an instinct of Self-Assertion, and his views on Play and Imitation are held to be in close accord with those of Mr. MacDougal.

In the chapter on Play Miss Murray takes each modern theory in turn and shows how remarkably Froebel has anticipated them. Of play as "surplus energy" Froebel, like our most recent writers, will have none, for according to him there is not more than enough "healthy vital energy" in each child. But as far as our chief authorities, Groos and Stanley Hall go, Froebel, according to Miss Murray, really combines their theories of Preparation and Recapitulation. "You know that your sons need energy, judgment, perseverance, prudence, etc., . . . and all these things they are sure to get in the course indicated" (*i.e.* through play) (pp. 138-139). "In the development of the inner life of the individual man, the history of the mental development of the race is repeated." "Each successive individual human being must pass through all preceding phases of human development."

Having convincingly shown us Froebel's points of likeness to our modern writers, Miss Murray goes on with great frankness to consider Froebel's weak points. It is probably on this chapter that both earnest Froebelians and Froebel's opposers will have most to say. The former may criticise the author's evident objection to Froebel's mystic tendencies which she dismisses with the assertion that "the average teacher is incapable of philosophy". Philosophy and mysticism are not necessarily identical, but it is clear that Miss Murray has little sympathy with the mystic type of mind.

In the chapter which answers some criticisms Miss Murray shows conclusively that many of Froebel's critics have never taken the trouble to master all his works and so take him "as a whole". She proves by careful reference to the text that Froebel is by no means guilty of the accusation of making the educator's work merely passive. "Leidend" is not to be translated "passive" but rather "bearing with," "having patience with," and she brings forward one quotation after another in proof of her contention.

Mr. Graham Wallas's objections are well dealt with, but it does not seem as though Prof. Adams's objection to the plant theory is quite so well handled.

To the ordinary reader the book with its perpetual quotations may conceivably seem dull, but both to the students of Froebel and those of Modern Psychology the book will appeal, for incidentally Miss Murray has given us a most useful summary of some of the most important developments of our modern psychology, but in such a way that the reader is bound to go to the sources themselves, if not already well-known.

There is one curious omission in a book published at this date, *i.e.* there is no mention of Dr. Montessori, as one of Froebel's greatest

successors. Possibly the author felt that to add another chapter in proof of the likeness between the two leaders would contribute too much to the bulk of the volume. It is quite evident that to her Froebel still reigns in the kingdom of childhood.

We cannot close this convincing little book without a feeling of gratitude to the author who has done for us what we are all either too lazy or too busy to do for ourselves. She has gone straight to the original works, not only to a selected few, but to all, and with great patience has disinterred from what must be admitted is often vague and obscure, the very kernel of Froebel's teaching. This could never have been done had not our modern teachers shown the way, but with their lights to guide her, Miss Murray has certainly succeeded in giving us an interpretation of Froebel which will make us realise his greatness, and acknowledge ourselves, with a surer faith than ever before, his followers.

ALICE WOODS.

Berkeley and Percival. By BENJAMIN RAND. Cambridge University Press, 1914. Pp. x, 302.

Dr. Rand is rapidly laying under a heavy obligation all who are interested —and who is not?—in the early eighteenth century. He recently discovered and published Shaftesbury's *Philosophical Regimen* and *Second Characters;* and in this volume he has edited the correspondence of Berkeley and Sir John Percival, afterwards first Earl of Egmont. All the letters here printed are in a manuscript collection in the possession of the present Earl of Egmont. Some use was made of them by Fraser and Lorenz, but this is the first edition to give them in their entirety.

The excellence of Dr. Rand's editorial and bibliographical work is so well known that it is almost unnecessary to say that he has discharged his task with skill and care. To the letters he has prefixed a "Biographical Commentary," which is, for the most part, a paraphrase of the letters. From 1709 till 1733, the period in which nearly all the events of Berkeley's life occurred, the letters form an almost complete history, and very few *lacunæ* require to be filled in. In this Commentary I have noticed only one serious error. With regard to the letter of March 1, 1710, Dr. Rand says, "In the same letter Berkeley also states that he had written to Samuel Clarke (1675-1729) to favour him with his thoughts on the subject of God's existence". Now a little examination shows, I think, that this letter does not refer to Samuel Clarke. The passage runs as follows: "About the same time I wrote to Mr. Clarke, and desired he would favour me with his thoughts on the subject of God's existence, and the proofs he thought most conclusive of it, which I imagined would prove a grateful entertainment while his sore eyes prevented his reading". Now for three reasons this cannot refer to Samuel Clarke: (1) The "Mr. Clarke" of the letter is known personally to Berkeley. "I am in pain for him," he says in the same letter, "having not heard from him this long time." But at this time Berkeley did not know Samuel Clarke personally. When, later, he wished to get the opinion of Samuel Clarke on the *Principles*, he did not write to him direct, but sent his letter to Percival, requesting him to deliver it (letter of November 27, 1710). (2) "Mr. Clarke" is known personally to Percival. Berkeley says to Percival: "Pray, if Mr. Clarke be alive, give my humble service to him". But at that time Percival did not know Samuel Clarke (see letter of October 30, 1710). (3) Berkeley says of "Mr. Clarke": "I am often enquired of about his character, and I would fain add the love of letters and study to the rest of his good

qualities". It would be absurd to say this of one of the most erudite men of the day. And it is ridiculous to think of Samuel Clarke being requested to set down his thoughts on the being of God to pass the time while his eyes were sore. Only four or five years before, his Boyle lectures on the Being and Attributes of God made him the recognised authority on the subject. For all these reasons, the "Mr. Clarke" of the letter cannot be Samuel Clarke. Who then is "Mr. Clarke"? Possibly he is the same as the Mr. Clarke who is frequently mentioned in the letters, *e.g.* pages 64, 79, 98, 104, 106, 125, and who is shown by them to have been a friend of Berkeley and an intimate friend of Percival. He was probably no great authority on the being of God, but the form of Berkeley's request seems to indicate that it was addressed to a man who was not an authority. And Berkeley's other letters at the time show that he was rather fond of interrogating the "plain man" on philosophic questions. But perhaps "Mr. Clarke" is some person of whom nothing else is known. Campbell Fraser's error in attributing to Berkeley a letter signed George Berkeley, which Lorenz proved was written before Berkeley was born, should make us chary of inferring identity of individual from similarity of name. Two small points before we pass from the Commentary. Dr. Rand says that the first intimation in the letters of Berkeley's Bermuda project is contained in the letter of March 4, 1723. But there is a reference to it before that, in the first paragraph of the letter of December 16, 1722. Again, Dr. Rand states that before his work it had been uncertain when and where Berkeley's well-known verses on America were written. This is not so. The origin of the verses was discovered by Campbell Fraser (*Works of Berkeley*, iv., 365).

The student of philosophy who comes to these letters expecting fresh light on Berkeley's thought will be disappointed. Most of the passages of interest in connexion with Berkeley's philosophy have already been quoted by Campbell Fraser. In any case, there are not very many of them, because, though Percival was an excellent man, he was not, as Berkeley soon discovered, much of a philosopher. After the first few letters philosophical matters in the narrower sense are never raised. The chief importance of the letters is biographical The fact that stands out with special clearness in them is Berkeley's extraordinary persistence in any project in which he happened at the time to be interested. The letters from 1721 till 1724 throw an interesting light on Berkeley's ingenuity and practical prudence in his endeavours to obtain the Deaneries of Dromore, Derry, and Down. He displayed even greater perseverance in forwarding his Bermuda project. It seems possible that the *nisus* to this scheme proceeded from Berkeley's disgust with his lawsuit over the Dromore Deanery. On March 4, 1723, he wrote to Percival that it was about ten months since he reached his determination on the missionary project. Now that puts the decision exactly at the time when Berkeley became immersed in his lawsuit, when in utter disgust he wrote, "God preserve your Lordship from law and lawyers" (April 14, 1722).

Considered simply as letters, this correspondence is not in the first rank. In Berkeley's earlier letters, which are by far the most pleasing, he makes interesting remarks on many prominent men of the day — Addison, Swift, Steele, Pope, Sacheverell, Arbuthnot, Whiston and many others. But somehow Berkeley did not have the qualities of the great letter-writer. Perhaps he was not sufficiently detached. His interest was always concentrated on some one scheme, and the great letter-writer must always be something of a dilettante. Berkeley's letters are rarely dull, but they cannot compare with those of Swift, of Cowper at Olney, Gray at Cambridge, or Fitzgerald at Woodbridge.

G. A. JOHNSTON.

The Psychology of Revolution. By GUSTAVE LE BON. Translated by BERNARD MIALL. London: T. Fisher Unwin. Demy 8vo. Price, 10s. 6d. net.

In this book, M. Le Bon, fresh from his study of the psychology of the Crowd-Mind, proceeds to apply his conclusions to the interpretation of the causes, course and significance of the French Revolution. The results are at once interesting and disappointing. The author's application of his doctrines to the history of that remarkable time is very interesting; but I am inclined to think that they do not materially alter one's opinions of the forces which controlled the conduct of the actors or shaped the course of events in the drama.

M. Le Bon's main contention is that history has failed to comprehend these matters, because it has insisted on regarding the ideals and beliefs of the time as based on rational grounds. He recognises that ideals and beliefs, religious, mystical and political, have always been the mainsprings of great historical movements, and that to explain the movements, it is necessary to explain the origin of the beliefs. So long as psychology or history will regard these beliefs as voluntary or rational, he asserts, they will remain inexplicable: for it is not "the rational logic which conditions thought" that generates them.

However, once in existence they infect the 'crowd' of individuals who compose the State: and spreading by the psychological "laws" which M. Le Bon has formulated in his work on Crowd Psychology they produce such revolutionary movements as the Reformation or the French Revolution itself. But these movements, as M. Le Bon himself remarks (p. 29), "have usually commenced from the top, not from the bottom": and whatever sort of logical bases the ideals of Luther or Calvin may have had, I should have thought that those of Montesquieu, Voltaire, Turgot, Condorcet, Rousseau were pre-eminently 'rational'. The 'Sansculottes' may not have been rational, either in thought or action: but the ideals of their leaders (and leaders, as M. Le Bon affirms, are absolutely necessary for Crowd-action) had originally been formed by very logical deductions from abstractedly rational premisses.

M. Le Bon's analysis of the psychology of the various Revolutionary Assemblies and their leaders is extremely interesting, and succinctly summarises a great many important truths about their actions,—truths which political prejudices still existing often tend to obscure. But here, again, I am rather inclined to question the novelty of his conclusions. His description of the "Jacobin Mentality," for example (chap. ii.) seems to me to reduce itself ultimately to the statement that the Jacobins were fanatics of the first water: and political fanaticism does not differ very markedly from religious fanaticism at any time.

The really valuable point which M. Le Bon establishes seems to me to be the fact that political assemblies are simply Crowds,—of a special kind: but subject to exactly the same psychological processes and presenting exactly the same psychological phenomena as the fortuitous collection of individuals that make up a mob. The passion of Fear, so potent in crowds, was undoubtedly the master-motive which dictated the conduct of the Constituent and Legislative Assemblies, and of the Convention.

In a very interesting chapter, M. Le Bon discusses the results of democratic evolution, and the modern political psychology of France. If his conclusions are true, the fiery trial through which the Third Republic is passing to-day, may well be its salvation: but the deeds and conduct of the French nation during the last months of 1914 suggest that the colours of the picture are unnecessarily dark.

The translator's work would have been more effective if it had not been so literal. Some of the sentences in the book are certainly not English (*e.g.* p. 55, last line; p. 70, line 10; p. 73, line 16, where the English word 'momentarily' is actually a mistranslation; p. 128, line, 28; p. 140, line 18, where the sentence has no meaning at all to the English mind).

J. W. W.

William James and Henri Bergson: A Study in Contrasting Theories of Life. By HORACE MEYER KALLEN, Ph.D., of the University of Wisconsin. The University of Chicago Press.

The intellectual sympathy between Prof. James and M. Bergson, felt and acknowledged by both, was not, as generally supposed, due to an agreement between the two philosophers in their attitude toward the great problems. On the contrary they offer us and represent contrasting theories of life. This is Dr. Kallen's thesis which he defends with great zeal. He seems particularly anxious to show that the attraction which James felt for Bergson's philosophy was not for that philosophy as a whole, nor for any of its distinctive doctrines, but only for the comparatively unimportant negative feature of it, its critique of intellectualism. With Dr. Kallen it is a case of "Jacob have I loved, and Esau have I hated". The contrast is complete. Bergson is monist, James is pluralist. Bergson belongs to the philosophic tradition, he carries on the line of the great system makers, his system is so logical and complete that it is difficult to state one of his opinions without becoming involved in a restatement of the whole system. James on the other hand is myriad-minded and empirical, looking forward to the future, alert to the unique, the individual, the *important*. It is apparently nothing to the point that this view of the relation of the two philosophers is inconsistent with the expressed declarations of both, that Bergson has described his philosophy as reversing the Platonic tradition, and that James has spoken of himself as sitting at the feet of Bergson. What then is the ground of this extraordinary valuation of the two philosophies? It is a long-drawn argument, but it rests, as it seems to us, exclusively on the posthumous work of James, *Essays in Radical Empiricism*. At any rate without it the argument would be pointless. Some of these essays are among the best of James's writings, though they belong to very varied periods; they strike, however, the sympathetic note between Dr. Kallen and his master. Radical empiricism seems to Dr. Kallen to point the way to New Realism, and New Realism is the philosophy of the future. The argument is singularly unconvincing, even on its own premisses, less perhaps in its appreciation of James than in its travesty of Bergson. It would be easy enough to make out a case for the exactly opposite contention, namely, that it is Bergson, not James, who is pointing to a New Realism. But the misconception which regards Bergson's philosophy as a system is inexcusable. It is no doubt due to a failure to appreciate that view of a problem which Bergson expresses by the term *globale*. No philosophical problem can be isolated, its significance lies in its relation to the whole problem of life and knowledge. To have philosophic vision, to see everything *globalement*, is not to be a system builder.

Dr. Kallen's book is enjoyable reading, notwithstanding, perhaps partly on account of, its queer and remarkable terminology. The reader will learn much about "desiderates" and will be made acquainted with "prospective ultimacies" and "utter and transitive nextness," and an uncanny thing called "a tychistic universe".

H. W. C.

Religion in an Age of Doubt. (Library of Historic Theology.) By the Rev. C. J. SHEBBEARE, M.A. London: Robert Scott, 1914. Pp. xx, 219. 5s. net.

Mr. Shebbeare's lucid and attractively written book will help to imbue theologians who read it with a sense of the extreme value of sound philosophic training for their special work. "The fault, surely, of much recent theology," he remarks, "is that its writers are devoid of intellectual hope. They do not expect more light upon the mystery of the divine nature: there is no evidence that they even wish for it." Against this Mr. Shebbeare argues capably that a theology which declines to think out and through its problems must sink into mythology, though his book in great part is devoted to a competent and discriminating exposition of Ritschlian method. He approaches Ritschl by way of Kant, on whom he has something fresh to say from an unusual standpoint, claiming, for instance, that Kant has strengthened the case of the preacher "by describing moral consciousness in a way which may be seen to be correct by those who possess it". Indeed, he goes so far as to identify evangelical "faith" with the Kantian "good will," but here the argument is too brief to prove more than analogy. He agrees with Ritschl in basing religious belief on moral insight and historic fact, as also in denying that theology can be studied to purpose in a spirit of entire detachment. He rightly dissents, however, from Ritschl's thorough dislike of metaphysics; the doctrine of God, for any thinker, must pass into a theory of the universe. The argument from Design can be restated, and he ably restates an æsthetic form of it, but without raising the vital question whether the notion of Deity it may indicate would in the least satisfy the religious consciousness. In the next chapter it is rather unconvincingly urged that if conscious life has supreme value and matter is good, optimism demands the resurrection of *sensible* body as well as soul. Acute but unduly short notes are given on idealism as well as on the theory of knowledge involved in a fully equipped theology. These are the chief points of specifically philosophic interest, but the volume as a whole is delightfully and freshly relevant to the modern mind and will do real service in disseminating good philosophy in religious circles. Cheerfulness keeps breaking in as with Dr. Johnson's friend who tried to be a philosopher; Mr. Shebbeare's comment on one aspect of Tractarian thought being that "God, Man, and the Universe,—rather than the special claims of the Church of England,—are, after all, the central subjects of theological inquiry".

H. R. MACKINTOSH.

Können wir noch Christen sein? Von RUDOLF EUCKEN. Leipzig: Verlag von Veit & Co, 1911. Pp. 236. Price, M. 3.60.

Eucken's question is, Can we still be Christians? His answer is that we can, and indeed must, but only on condition that Christianity is 'renovated,' *i.e.*, emancipated from the fixed and rigid forms of creed and dogma on which the historical Churches insist, and brought into harmony with the thought and feeling of modern men. This reform of Christianity is, according to him, the task of the present age (p. 236).

The book is written with unmistakable sincerity, and it hardly needed the assurances of the Preface to tell the reader that the problem which Eucken voices with all his eloquence, is one which he has deeply felt within himself. It is the problem of the genuinely religious man who is

both attracted and repelled by Christianity in its present forms. The religious temper of Eucken's philosophy is, of course, obvious from all his writings. And in this book, too, the general need for religion in human life is deduced from the principle that there can be no genuine 'Geistesleben' which has not in it one element of religion (p. 122), a sense of the divine acting within man and lifting him on to a higher plane of life. In turn, all genuine religion is, in its essence, a form of 'Geistesleben' in this sense, and Christianity, like all higher religions, is a 'Geistes-religion' (p. 160). The question, then, is not whether the modern mind does or does not need religion, but whether it can accept Christianity in its traditional forms.

The crucial point, I gather, is for Eucken the Christian doctrine that in Christ, God took on human form and died for the sins of the world (pp. 184 ff.). He pays a tribute to the 'iron logic' with which Christian dogma has developed this central thesis, through the conceptions of sacrifice and atonement, of Christ as the mediator between God and man, of the virgin-birth and the ascension, even of the descent into Hell. In short, the whole second article of the creed is in question. The problem is to distinguish here between 'the permanent content of truth and its transitory formulation' (p. 192). But Eucken explicitly declines to undertake this task. All we can gather is that this second reformation of Christianity for which he calls will discard all miraculous events, and revise the position of Christ. We shall do without the 'anthropomorphic' conception of God's wrath appeased by the blood of His son. Christ will no longer be the only and necessary mediator between man and God. His life will no longer be the one exceptional event in history charged with metaphysical significance, the one entry of God into the world, the single source to us of divine grace and salvation. Christ will still be a most exceptional man, a pre-eminent leader, a religious genius, but he will take his place among the small band of similarly 'creative personalities' (p. 193) to whom we owe the uplift to fresh levels of 'Geistesleben'. The main thing, then, for Eucken is to eliminate the exceptional significance of Christ's life as an historical event, and of Christ's function as the only mediator. Instead, he thinks, 'religious conviction forces us to demand an immediate contact of human and divine throughout the whole breadth of spiritual life' (p. 186), and therefore a direct intercourse between the soul and God, in the spirit of St. Augustin's: 'God and the soul would I know.—Nothing more?—Nothing more' (p. 191).

The Christianity of the future will retain the form of a Church, of a religious community (pp. 136, 137), but Eucken despairs of the possibility of reform from *within* any of the existing Churches, Catholic or Protestant. Apparently, then, we must look to a movement outside the Churches to bring about the reformation which is to give us the Christian Church of the future. Is this perhaps one of the reasons why Eucken appeals specially to Nonconformists?

The strength of Eucken's book is that it puts into eloquent words what many men and women feel who are not irreligious and yet are kept by conscientious objections from joining in the worship of the Churches. Its weakness is that of Eucken's whole philosophy, *viz.*, that he calls for a new form of 'Geistesleben' which he cannot positively define to us. He is at best a forerunner, preparing the way for the coming of the spiritual leader who is to make all things new. At any rate, Eucken himself has shown so far no signs of becoming the Luther of a New Reformation.

R. F. A. H.

Zum gegenwärtigen Stand der Erkenntnistheorie (Zugleich Versuch einer Einteilung der Erkenntnistheorien). By THEODOR ZIEHEN. Wiesbaden: Verlag von J. F. Bergmann, 1914. Pp. 73. Price, M. 2.80.

This pamphlet gives a useful *resumé* of the same author's larger *Erkenntnis Theorie*, which was published last year. He starts from the Dualism of mind and matter, the psychical and the physical, as we find it presupposed by Psychology on the one side and Physical Science on the other. His first point is that this Dualism is unstable. For Physical Science there is an almost irresistible tendency to treat the psychical side as epiphenomenal; for those who begin from the psychical side there is the corresponding tendency to absorb the physical as 'object' or 'content' into the psychical. The burden of the author's criticism of all other epistemological theories is that, in one way or another, they have been wrecked on the rock of this Dualism. His own theory—named inelegantly 'Binomismus'—is that the distinction of physical and psychical is neither original nor ultimate. Mind and matter are not two substances of which the world is, in last analysis, made up; nor can either be reduced to the other. Both are, as it were, groupings or orders of something more fundamental, which is neither psychical nor physical, and therefore *neutral*. In this point, then, the theory is, as the author acknowledges (p. 72), monistic. But the neutral *datum* exhibits a twofold structure or order or law—'eine zweifache Gesetzmässigkeit,' hence 'Binomismus'. The one order, of which the principle is 'Kausalgesetzlichkeit,' is that of phenomena in physical nature. The other order, the principle of which the author calls (for reasons which are somewhat obscure) 'Parallelgesetzlichkeit,' is that of phenomena in a psychical context—the grouping which is found in a 'mind,' as Psychology studies it, and which is there dependent on such factors as the state of the sense-organs, the direction of attention, the nexus of associations, etc. But the order of 'matter' and that of 'mind,' whilst differing in their 'law,' are both made up, in last analysis, of the same elements which the author calls 'das Gegebene,' or preferably 'Gignomena'. These 'Gignomena' may be exhaustively classified as Sensations and Ideas ('Empfindungsgignomena' and 'Vorstellungsgignomena'), the latter term to cover judgments and volitions. Feelings are, somewhat cavalierly, asserted to be provided for in this classification through the fact that they are only found attached to these two kinds of gignomena. Reality is held to be identical with the totality of these gignomena, and in thus rejecting a transcendent 'thing-in-itself,' the author declares his view to be both 'immanent' and 'positivist'. Lastly, in that Sensations are held to be prior in time to Ideas, the theory is characterised as 'protæsthetic,' but in that the Ideas do not merely reproduce, but elaborate and interpret, the Sensations the theory is 'transformistic'. The business of 'Erkenntnistheorie' is thus to start from the totality of gignomena, classify them, trace their transformations, and formulate the laws of the groupings and orders which they develop. It is thus co-extensive with Philosophy; it gives us a 'Weltbegriff'.

The task which the author here assigns to 'Erkenntnistheorie,' *viz.*, to give us a Theory of Reality, is obviously identical with that usually assigned to Metaphysics. The author's polemics against Metaphysics are, therefore, beside the point. Moreover, they recoil on his own head. Metaphysicians, he complains, work with arbitrary hypotheses and *a priori* assumptions, whereas he stands on the sound basis of 'fact' and 'experience'. A little self-criticism should have convinced the author that an appeal to fact and experience is only a cloak for the most insidious form of dogmatism. A statement about what is 'given,' is always

a theory, and one that is generally full of hidden and arbitrary assumptions. So in this case. In talking of his 'gignomena,' the author takes for granted at the very start that they form a totality, that they consist only of sensations and ideas, that the latter have their sole source in the former, that time is the form of existence of these gignomena, etc., etc. All these statements are highly debatable, and I know of no 'experience' (as opposed to theory) by appeal to which they could be settled. Again, though the gignomena are supposed to be neutral as regards the distinction of physical and psychical, the very terms 'Empfindung' and 'Vorstellung' inevitably import a psychical character. It would have been well if the author had learned a little more from the logic of some of the metaphysicians whom he criticises.

R. F. Alfred Hoernlé.

Zur Grundlegung einer Lehre von der Erinnerung. Von August Gallinger. Halle: Niemeyer, 1914. Pp. iv., 149. Price, 4 marks.

The first of a projected series of investigations into memory in the strict sense, as distinguished from memory in general. The present work is an analysis of the state of consciousness which constitutes remembering, leaving the later numbers to deal with the "kinds, forms and conditions" of the process. It contains much valuable critical matter and as a positive analysis is also notable and is decidedly worth study. The most important part is the last which deals with the act of remembering (*Erinnern*) itself. The writer maintains vigorously the "actuality" view, according to which remembering is a direct occupation of the point of view of the past experience, an act by which we put ourselves directly into our own past (p. 133). With this goes the important remark that we are aware in the present of the past as past, and that to be aware of something *at the present* is not the same thing as to be aware of it *as present* (p. 92). The actuality view is contrasted with the representational view (*Vorstellungsansicht*) which declares that when I remember my past experience this experience is before my mind in idea; and there is good and pertinent criticism of the various shapes which this doctrine assumes, all of them implying that my memory refers to something else which is not directly apprehended. There is useful handling of the recent German literature of the subject. When the writer treats of the object of memory, he insists that the object itself need not be past (*e.g.* when I remember that I am to go to a meeting this evening, where the object is even future). It is only the experience (*Erlebniss*) which is presented as past. But if the object is stated fully, can the time reference be omitted? I remember reading *Paradise Lost* for the first time at school. The poem is not in the past, but the object remembered includes the circumstances of reading it. The writer of course sees this, but maintains the distinction of the object from the experience of it (*Erlebniss*). But is not this to desert the strictly descriptive point of view? For what was experienced was not the object apart from the circumstances under which it was experienced, but as it was experienced. If I see an object, what I see is how the object looks, not the object as a whole. So when I recall a past experience, that which I experienced, it would seem, must have its past date, though the 'thing' to which it belongs may not be confined to the past.

S. A.

Die Denkfunktion der Verneinung, eine kritische Untersuchung. Von Dr. Nicolaus Petrescu. Teubner, 1914. Pp. viii, 81.

Starting with "Function" as the most comprehensive description of thought, the author tries to co-ordinate the various problems in connexion

with negation by working from its different meanings with reference to that function. Thought as functional involves (1) psychological phenomena, (2) logical forms, (3) metaphysical conditions, and the difficulties with regard to negation have arisen from a confusion of these different standpoints. In accordance with these the solutions of the main problem, that of the relation of negation to affirmation, varies. Psychologically, Dr. Petrescu finds that negation is the primitive type of judgment, as can be seen in our attitude to an object that is new to us. Our first conscious act is to set it over against the self, and only secondarily do we identify the two in knowledge. For logic, on the other hand, which the author regards as formal, affirmation and negation are correlative. Sigwart's argument for the primacy of affirmation trenches on metaphysics, while Lotze, who accepts the correlation, by bringing in the question of the validity of the relation between S and P in the two types, goes outside of the limits of logic. The treatment of the metaphysical question is the fullest. Here the priority is assigned to negation, which is found to be dominant in the impulse to speculation, its dialectical procedure, and its resultant valuations. In contrast, the special sciences aim rather at affirming, and are condemned to finitude and externality. (In fact, as we might put it, "All affirmation is privation".) Whereas, with metaphysics the method is itself the result and the object. Negation, then, is a product of *pure* thought, but is not itself a function, not a constructive category. Thus Hegel was wrong in trying to apply the dialectical method of metaphysics to the empirical world. Negation is "ideal," and cannot be equated to any "real" opposition or distinction among objects. There is in this connexion an interesting criticism of the treatment by Kant and by Bergson of the notion of "nothing".

The bearing of this position on the question of Infinity tends to suggest an alternative solution to those which attempt to find for the term a positive signification, *e.g.* the various metaphors and analogies in connexion with the phrase "concrete universal". Why not rather insist on the characteristically negative nature of metaphysical or dialectical thinking? The author's argument, however, is suggestive rather than full. The notion of "function" itself remains vague, and in fact at the one place where its applicability to thought is discussed is dismissed along with "spontaneity" and "activity" in favour of "movement". The only form of judgment considered is the categorical, and that throughout as the connexion or differentiation of two notions. The relevance of this analysis in the psychological argument is not made clear. On the other hand this does no harm in the second section, with its strict view of logic.

W. ANDERSON.

Die Psychologie und ihre zentrale Stellung in der Philosophie, eine Einführung in die wissenschaftliche Philosophie. By JOSEF EISENMEIER. Halle, Max Niemeyer, 1914. Pp. viii., 111.

In spite of a rather dogmatic and over-confident mode of statement, this is a clearly and vigorously written little book. Its contention is that psychology is the central discipline for the whole of philosophy, because "all philosophy is either psychology outright or intimately connected with psychological research," and rests entirely upon it (p. 105). This the author endeavours to prove by examining the philosophic sciences *seriatim*, and by tracing the scientific backwardness of philosophy to its neglect of psychology. Psychology is an empirical science, though it has not yet succeeded in subjecting many psychic facts to experiment; but it must not be separated from philosophy. In consequence of this attitude

towards psychology he repudiates 'disinterested' knowing, denies that a purely theoretic science exists (p. 30), makes their practical application a test of the value of cognitions, and declares that "the much-abused practical interests are the most powerful impulse to research, and its most attractive aim" (p. 29). In short he is brought very near to pragmatism. Nevertheless he departs from it again by not consistently using 'practical' in the wide pragmatic sense in which every object of interest is 'useful,' by uncritically making all 'genuine knowledge' rest on self-evidence, and by taking far too formal a view of logic. That he should not have perceived the need for testing the experience of self-evidence, and inquired how sane and useful is to be discriminated from insane and harmful 'self-evidence,' is the more curious because he sees quite clearly that the practical application of a principle is a real test of its truth (pp. 90-91).

F. C. S. SCHILLER.

Wissenschaft und Methode. By H. POINCARÉ. Authorised German translation by F. and L. LINDEMANN. Teubner. Pp. vi, 283.

This is an excellent translation of Poincaré's well-known book into German. It appears in the 'Wissenschaft und Hypothese' series, which began with a translation of his *Science et l'Hypothèse*. In some ways this edition is better than the original French one, for it is provided with copious explanatory notes and references to other literature on the subjects treated. The name of F. Lindemann is a guarantee of the accuracy of these notes, so far as they deal with mathematical subjects, as they mostly do.

C. D. B.

Orthopädische Behandlung der Nervenkrankheiten. Von Prof. Dr. K. BIESALSKI, Direktor und leitender Arzt der Berlin-Brandenburgischen Krüppelheil- und Erziehungs-anstalt, mit 162 Figuren im Text. Jena: Verlag von Gustav Fischer, 1914. Pp. 166.

This small volume is a section of a larger text-book of orthopædics. The author rightly claims that, by bringing together in a single volume all nervous diseases so far as they are capable of orthopædic treatment, it avoids the specialist's danger of dealing only with symptoms. The volume is essentially a medical treatise; but it has a double interest for the student of mental processes: first, it contains a good summary, with excellent diagrams, of the elements of the nervous system; second, it shows, indirectly, how subtly involved the forms of paralysis are. Even in the peculiar contractures of hysteria and the muscular habits induced by them, various forms of orthopædic apparatus give good results. Recently we have had such a flood of "mental" methods of treatment that we are apt to forget how much "mind" is embodied in the physical appliances here involved and in the physical methods of treatment. Whether we are "animists" or "parallelists," whether we regard writer's cramp as a mental or a physical condition or both, we have to recognise the curative value of change of pen and altered shape of penholder.

W. L. M.

Grundzüge der Mengenlehre. Von FELIX HAUSDORFF. Leipzig: Veit und Co., 1914. Pp. viii, 476. Price, 18 marks; bound, 20 marks.

The only interest this very able text-book has for philosophers seems to be at the very beginning. Since the book is not historical, we have a

warning that the concept of 'class' (*Menge*), which is so fundamental in all mathematics, is subject to certain difficulties. Zermelo is mentioned with praise as having devised a method for separating legitimate from illegitimate classes. Such methods are not uncommon among mathematicians, and seem to be prompted by a strange fear of philosophy and logic. The case is exactly analogous to the action of a keeper of what he thought was a china shop, when a bull entered it. His practice was simply to deny that that part of the shop where the bull was destroying things was a china shop, and to assert that it was a drapery establishment. Unfortunately it was by no means certain that the bull would confine his attentions to the drapery establishment.

P. E. B. JOURDAIN.

Received also :—

Bernard Bosanquet, *Three Lectures on Æsthetic*, London, Macmillan, 1915, pp. ix, 118.

Henry Sturt, *The Principles of Understanding: An Introduction to Logic from the Standpoint of Personal Idealism*, Cambridge, University Press, 1915, pp. xiv, 299.

Pramathahath Mukhopa dhaya, *The Approaches to Truth* (India, Her Cult and Education Series), Calcutta, P. S. Basu, 1914, pp. iii, 442.

Psychological Studies from the Psychologcal Laboratory, Bedford College for Women, University of London, University of London Press, pp. 161.

Theodore de Laguna, *Introduction to the Science of Ethics*, New York, Macmillan, 1914, pp. xi, 414.

Henry Osborn Taylor, *Deliverance, The Freeing of the Spirit in the Ancient World*, London, Macmillan, 1915, pp. vii, 294.

Thomas Verner Moore, *A Historical Introduction to Ethics*, with an introduction by the Right Rev. Thomas Joseph Shanan, New York, etc., American Book Company, 1915, pp. xii, 164.

Eugene Miller, *The Secret of the Universe*, Topeka, Kansas, Crane & Co., 1915, pp. 255.

R. E. Lloyd, *What is Adaptation?* London, etc., Longmans, Green & Co., 1914, pp. xi, 110.

James Ward, *Naturalism and Agnosticism, The Gifford Lectures Delivered before the University of Aberdeen in the Years* 1896-1898, Fourth Edition, London, A. & C. Black, 1915, pp. xvi, 623.

Carveth Read, *Logic, Deductive and Inductive*, Fourth Edition, enlarged and partly rewritten, London, Moring, 1914, pp. xvi, 417.

Charles Herman Lea, *A Plea for the Thorough and Unbiassed Investigation of Christian Science and a Challenge to Its Critics*, Second and Revised Edition, London, Dent, 1915, pp. × xiv, 230.

Modern Philosophers, Lectures Delivered at the University of Copenhagen during the Autumn of 1902, *and Lectures on Bergson delivered in* 1913, by Harald Höffding, translated by Alfred C. Mason, Authorised Translation, London, Macmillan, 1915, pp. xii, 317.

Benedetto Croce, *What Is Living and What Is Dead of the Philosophy of Hegel*, Translated from the Original Text of the Third Italian Edition, 1912, by Douglas Ainslie, London, Macmillan, 1915, pp. xviii, 217.

Frau Förster Nietzsche, *The Lonely Nietzsche*, Translated by Paul V. Cohn, Illustrated, London, Heinemann, 1915, pp. xii, 415.

Lello Vivante, *La Spontaneita del Pensiero Teoretico*, Roma, Ermanno Loescher & Co., 1915, pp. 46.

Giovanni Gentile, *Studi Vichiani*, Messina, Giuseppe Principato, 1915, pp. 458.

VIII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxiii., No. 6. **V. Delbos.** 'French Works on the History of Philosophy from 1909 to 1913.' [After noting certain works on the history of science (Tannery, Milhaud, Duhem) the writer passes to those on ancient, mediæval and modern philosophy: Brochard's collected papers, Sertillanges on Thomas Aquinas, Adam on Descartes, Blum on Hamann, etc.] **O. Ewald.** 'German Philosophy in 1913.' [Interest centres on the relations of logic, psychology, phenomenology: Hönigswald, Driesch, Münch, Husserl, Oesterreich, Natorp are reviewed.] **E. B. Talbot.** 'The Time-process and the Value of Human Life,' I. [In estimating the value of a human life (by pleasure-pain, moral worth, intellectual or æsthetic activity) we assign far greater importance to present and future than to past stages.] **G. W. Cunningham.** 'Bergson's Conception of Finality.' [Bergson's alternative of teleological finalism and creative evolution rests on the separation of intellect and will. Give that up, and a creative finalism is possible, in which the creation of the ends that operate in directing and controlling the evolutionary process is a part of the process itself.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes. Vol. xxiv., No. 1. **H. W. Carr.** 'The Metaphysical Implications of the Principle of Relativity.' [There must be something absolute; and if this is not space and time, or any physically real entity fixed in relation thereto, continuity must lie in a spiritual principle.] **E. B. Talbot.** 'The Time-process and the Value of Human Life,' II. [To justify the belief in the compensatory function of the later stages of human life we must assume the reality of change, as characterising that life, in the sense that the later is what it has become, that it holds the earlier in solution.] **H. E. Bliss.** 'On Relations.' [Most relations are real, though some are ideal. They differ in reality, as in being, from entities and from ideas: from entities, in that they are not existent; from ideas, in that they are real, or if ideal are but constitutive of (or attributive to) ideal complexes.] **C. Becker.** 'The Dilemma of Diderot.' [The Diderot of 1765 and later was at once the speculative philosopher, unable to ignore reason, and the emotional preacher of morality, unable to renounce his belief that good action is a virtue.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

PSYCHOLOGICAL REVIEW. Vol. xxi., No. 6. **C. A. Ruckmich.** 'A Schema of Method.' [Method, as general mode of investigation, should be distinguished from procedure, point of view, and rational principle.] **E. L. Thorndike.** 'Fatigue in a Complex Function.' [Continuous exercise increases gross efficiency, decreases interest; a rest means a very slight gain in efficiency, but a very great gain in interest.] **J. E. Downey.** 'On the Reading and Writing of Mirror-script.' [A preliminary report. Spontaneous mirror-writing seems to be conditioned on

a general difficulty of orientation; capacity to interpret mirror-reversals may be due to visual as against motor preoccupation; efficiency of mirror-reading is apparently correlated with degree of right-handedness.] **G. C. Myers.** 'A Comparative Study of Recognition and Recall.' [Tests with words. Efficiency of recognition is about two and a half times that of recall; the correlation of the two is surprisingly low; the effective element is far more marked in recognition.] **A. Wyczolkowska.** 'The Automatic Writing of Children from Two to Six Years, indicative of Organic Derivation of Writing in General.' [Distinguishes and illustrates five stages from chaotic 'scribbling' up to imitation of the writing of adults. Automatic writing (especially the power to produce the continuous curve) may be the organic basis from which cultural writing has evolved.] **H. L. Hollingworth.** 'Variations in Efficiency during the Working Day.' [Motor processes gain, mental lose, as the day proceeds; possibly the former grow cumulatively more vigorous and inhibit the latter; the mechanism of work is definitely affected by drugs.] Discussion. **H. S. Langfeld.** 'The Inhibitory Factor in Voluntary Movement.' [Reply to Dearborn.]

American Journal of Psychology. Vol. xxv., No. 4. **R. MacDougall.** 'The Distribution of Consciousness and Its Criteria.' [Points out, after discussing the proposed 'criteria' of consciousness, that the comparative psychologist is concerned not with consciousness as such, as unity of functioning, but solely with particular functions (memory, reasoning, etc.), whose presence and status must be determined in every case by all available evidence.] **L. T. Troland.** 'Adaptation and the Chemical Theory of Sensory Response.' [Assumes, against Hering, that stimulation can directly affect catabolism alone; uses adaptation as the touchstone of a chemical mechanism of sensation.] **R. A. Tsanoff.** 'On the Psychology of Poetic Construction: an Experimental Method.' [Proposes to use the first manuscript drafts of poems as materials for the study of constructive imagination.] **S. W. Fernberger.** 'The Effect of the Attitude of the Subject upon the Measure of Sensitivity.' [Experiments with lifted weights, under different instructions, prove the influence on the results of the observer's attitude.] **S. C. Kohs.** 'The Association Method in Its Relation to the Complex and Complex Indicators.' [Traces the development of experiments on association; stresses the practical importance of complex and constellation; gives a full list of the complex indicators.] Book Notes. **E. B. Titchener** and **W. S. Foster.** 'A Bibliography of the Scientific Writings of Wilhelm Wundt.' [Sixth list.] Index. Vol. xxvi., No. 1. **E. G. Boring.** 'The Sensations of the Alimentary Canal.' [The œsophagus is sensitive to warmth, cold, pressure and pain; the sensations are in general referred either to the region below the sternum or to the throat. The stomach is sensitive to dull pressure and pain; cold and warmth probably come from the superficial tissues; localisation of electric shocks within the stomach is more accurate than within the œsophagus. The anus is sensitive, the rectum probably insensitive, to warm and cold; both are sensitive to pressure and pain.] **F. L. Wells.** 'A Note on the Retention of Acquired Capacities.' [Decrease of functional efficiency with time is better measured by delayed response than by loss of response. Experiments with tapping and with addition and cancellation of digits show that tendency to loss is more generalised than ability to acquire.] **J. N. Curtis.** 'On Psychology as Science of Selves.' [Critique of Calkins.] **A. S. Edwards.** 'An Experimental Study of Sensory Sugges-

tion.' [In sight, smell, taste and temperature (probably in hearing and touch) a verbal suggestion may arouse conscious processes that are, phenomenologically, identical with those ordinarily aroused by adequate stimulus or change of stimulus.] **O. Pfister.** 'Psycho-analysis and the Study of Children and Youth.' [Distinguishes a retention type, which magnifies the present by association from the past, and a repulsion type, which is thrown back by a trying present into the infantile past.] **E. B. Titchener** and **H. P. Weld.** 'Minor Studies from the Psychological Laboratory of Cornell University.' **F. L. Dimmick.** 'XX. On the Localisation of Pure Warmth Sensations.' [There are noticeable tendencies of direction; certain areas are preferred; the error is very large.] **L. G. Meads.** 'XXI. Form *vs.* Intensity as a Determinant of Attention.' [A light-form of low intensity may attract as powerfully as a formless light of high intensity.] **E. J. Gates.** "XXII. The Determination of the Limens of Single and Dual Impression by the Method of Constant Stimuli.' [Repeats and extends Riecker's experiment; treats results by Urban's method.] Book Notes. 'Theodor Lipps.'

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. xi., 17. **G. Santayana.** 'The Coming Philosophy.' [A very brilliant criticism of the New Realism (*sp.* American) *à propos* of Holt's *Concept of Consciousness*, which describes it as "a fusion of transcendentalism, pragmatism, immediatism and logical realism, perplexed by confused thinking, half-meant random assertions, undigested traditions, uncouth diction, and words turned from their right use. Never was a group of thinkers so sophisticated and so ill-educated; Greek sophistry was perverse, but it was skilful; mediæval scholastic language was barbarous, but it was plain." Such plain speaking has not been heard in the land since James held up Papini as a stylistic model to be imitated by 'the bald-headed and bald-hearted young aspirants to the Ph.D.' in the same JOURNAL; but towards the end Prof. Santayana, remembering no doubt his Harvardian collegiality, relents perceptibly and confesses that the New Realism is not unsuited to the age. Unfortunately he does not think highly of the age.] **E. H. Hollands.** 'The Externality of Relations.' [Concludes that this depends on whether there are unilateral relations or all relations are bilateral as natural science insists.] xi., 18. **H. B. Reed.** 'Ideo-Motor Action.' [After a review of the relevant experimental evidence it is concluded that "the work and function of ideas is to analyse stimuli to which conduct responds". This explains "why an idea of a movement does not produce it; why imitation, the teaching of animals and children how to do certain acts by acting the part before them . . . are usually ineffective. They fail to point out the proper stimuli to which the desired acts are a response."] **J. F. Dashiell.** 'Values and Experience.' ["The world as experienced is a world of appreciative qualities, of *value* aspects . . . not of facts, but of meanings . . . goods, uglies, bads, magnificents, wrongs, beautifuls, uprights . . . experiencedness = meaningfulness. This amounts to the statement that the philosophy of pure or immediate experience implies and presupposes a value-philosophy . . . value is primary in all senses of the word in any human experience, and it is therefore a primary category in any construction of the world on the basis of experience." Nevertheless it is later analysable into an organic or 'subjective' and an extra-organic or 'objective' element; for all that "a value still remains a *fact* as unique and primary and important as ever".] This number contains also an expert review of *Principia Mathematica*, vol. ii., by C. I. Lewis. xi. 19. **J. Dewey.** 'Psychological Doctrine and Philosophical Think-

ing.' [Points out that *de facto* "the larger part of the time and energy of teachers of philosophy is taken up in the discussion of problems which owe their existence to the influence of psychology". Yet in its methods and conceptions our psychology is a survival of the philosophy of Descartes and Locke and not a natural product of scientific inquiry. Even 'behaviorism' shows this taint, and does not start from "human nature as it concretely exists and human life as it is actually lived".] **N. Wiener.** 'The Highest Good.' [None exists or is needed, because 'objective morality' is only the end-product of conflicts between the feelings of each individual and between the private consciences of individuals in society. Hence both the social conscience and the objective good are not fixed but mutable, being biologically controlled instinctive endowments. This ensures a general likeness between moral standards, but nevertheless "two races may come into a war in which each is from its own standpoint absolutely right and from that of the other absolutely wrong".] **W. B. Pitkin.** 'Time and Pure Activity.' [Criticizes Wells's *Time-Machine* in order to show that the time order is an integral aspect of the physical order and cannot be conceived in abstraction from it.] xi., 20. **H. A. Overstreet.** 'The Function and Scope of Social Philosophy.' [= the critique or evaluation of social categories.] **J. E. Downey.** 'Judgments on Handwriting, Similarity and Difference.' [An experimental paper bearing on a dispute (with H. L. Hollingworth) as to which of these is perceived more easily.] xi., 21. **N. Wiener.** 'Relativism.' [Means that "no experience is 'self-sufficient,' that no knowledge is absolutely certain, and that no knowledge is merely derived," and is "closely related on the face of it to two great tendencies in modern philosophy, pragmatism and the metaphysics of Bergson," as being anti-intellectualistic and "a protest against mere formalism in metaphysics". The article contains some effective criticism of realism and absolutism, but is not very successful in differentiating 'relativism' from pragmatism.] **E. F. Mulhall.** 'Experiments in Judgment.' [Pointing to the conclusions that (1) there is no such thing as general judicial capacity and (2) individuals who are consistent in one situation are not necessarily equally consistent in judging another situation, (3) judicial capacity and personal consistency vary with the objectivity of the judgments.] xi., 22. **C. I. Lewis.** 'The Matrix Algebra for Implications.' [Gives the assumptions of a new and more comprehensive system of symbolic logic, in which are included "the system of material implication, the system of strict implication and a calculus of consistencies.] **H. G. Hartmann.** 'Are Realism and Relativity Incompatible?' [Answers negatively because relativity must empirically recognise a variety of limits.] xi., 23. **M. R. Cohen.** 'Qualities, Relations, Things.' [Reply to Lovejoy, xi., 16.] **W. P. Montague.** 'Prof. Thorndike's Attack on the Ideo-Motor Theory.' [In the *Psychological Review* for March, 1913.] **L. W. Kline.** 'An Experimental Study for Classes in Reasoning and its Transference.' [Adapted to teaching beginners.] xi., 24. **E. A. Singer.** 'The Pulse of Life.' [After stating his (pragmatic) principle of method as "that to assert the existence or non-existence of anything is meaningless unless we can verify the assertion, but experience is the only means of verifying assertions, and behaviour is the only aspect of the beings we call living or conscious which is matter of experience. Hence in our empirical reasons for calling one thing alive, another not, one thing conscious, another not, must lie the meaning of life and mind," the author develops his theory of life as something which while not contravening the ideal of mechanism is yet only definable in terms of purpose. He suggests that "through a medium of mechanism, all of whose points are determined, a

pulse of life may pass freely" and "purpose-drawn," like a wave-motion in a liquid.] **H. G. Hartmann.** 'A Definition of Causation: A Reply to Prof. Sheldon.' [*Cf.* xi., 8, 10, 12, 14.] xi., 25. **A. H. Lloyd.** 'The Power Behind the Throne.' [= 'Nature.' Visible authority having been so thoroughly discredited, a time of 'Creation' must be at hand.] **G. A. Feingold.** 'The Psychophysical Basis of Moral Conduct.' ["Human conduct is not as ideational nor intuitive as it appears, but is rather the expression of numerous instincts and emotions without any other moral quality than that which attaches to them *a posteriori* according as they do or do not relieve conscious tension."] **J. P. Turner.** 'Philosophy and Social Attitudes.' [Belief in progress is modern and contrasts with the ancient sense of man's helplessness. In metaphysics 'eternalism' expresses the old attitude, 'temporalism the new. But we believe' that progress is *possible* not *certain*.] xi., 26. **M. R. Cohen.** 'History *versus* Value.' [Against the idea that the meaning of a thing can be exhaustively stated by narrating its history. The historian has always to select and to supplement his data and both these processes involve valuations. Actually "history remains a branch of apologetics, an attempt to justify the powers that have been victorious". But "the doctrine that right always triumphs is but an insidious form of the immoral doctrine that what triumphs (*i.e.* might) is always right". Hence "historicism, like its sister materialism, while professing empiricism, is really the offspring of vicious rationalism". It attempts "to banish real possibilities from the world" and is "obsessed with the dogma that only the factual can have true being".]

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. lxx., Heft 3 und 4. **H. W. Meyer.** 'Bereitschaft und Wiedererkennen.' [Experiments with meaningless syllables. Simple recognition (like reproduction) is favoured by preparation (*Bereitschaft*); the effect of preparation is unexpectedly persistent; its decay in time may be studied by the method of recognition. The quality of unfamiliarity seems to be rather negative (absence of familiarity) than positive. Under certain circumstances, simple recognition may serve as criterion of correctness.] **L. J. Martin.** 'Ueber die Abhängigkeit visueller Vorstellungsbilder vom Denken: eine experimentelle Untersuchung.' [Experiments with puzzle-pictures, visual forms, groups of dots, etc. The visual image is not informatory; its office is to sustain attention, to illustrate and reinforce imageless thought, to warn of incompleteness, etc.; sometimes it hinders speed of thinking. In general it is dependent upon (secondary to) imageless thought, which it more or less adequately expresses; it may thus help us to a knowledge of the laws of thought.] Literaturbericht. Preisaufgabe der kgl. preuss. Akad. der Wissenschaft.

"SCIENTIA." RIVISTA DI SCIENZA. Vol. xv., No. 1. Jan., 1914. Beginning with this number, *Scientia* is printed on better quality and lighter paper, and the edges are cut. The number of pages remains the same. **H. H. Turner.** 'The periodicities of Sun-Spots (A Reply to Mr. E. W. Maunder).' [In *Scientia* for January, 1913, E. W. Maunder stated his view that 'the sun-spot period is essentially one: there are no sub-periods: there are no multiple periods . . .'. The author criticises Maunder's use of the term 'periodicity'.] **M. Abraham.** 'Die neue Mechanik.' [The principles of the old mechanics of Galileo and Newton allow us to describe the motions of masses under the influence of their mutual gravitation, but do not suffice when the forces of electricity and magnetism, of light and of

heat come into play; and the *Principles of Mechanics* of Hertz closes the phase of evolution which wished to bring the whole of physics under the old mechanics. The existence of the pressure of light is proved theoretically and experimentally, but is contrary to the third law of Newton: the traditional principle of reaction is incompatible with a finite velocity of propagation of forces, and we must take into consideration the fact that force, like energy, remains latent during a certain time. Again, for the velocities of electrons, Newton's second law (that the acceleration of a particle is equal to the acting force divided by a mass proper to the particle and independent of its velocity) does not hold, as was shown by Kaufmann's experiment of 1901: in fact, the mass increases with the velocity. Yet certain principles of mechanics (Lagrange's equations and the principle of least action) keep their value in the new mechanics when we generalise the expression of Lagrange's function and of action. The question as to how it is that optical experiments with light from terrestrial sources do not show any influence arising from the earth's motion (Michelson) was examined by Lorentz (1892-1904) and resulted in the notion of 'local time' and the 'hypothesis of contraction,'—the latter being independently due to Fitzgerald, and made plausible by Lorentz. To be distinguished from this theory of the field is the theory of relativity set up by Einstein in 1905, which decided that the traditional ideas of geometry and kinematics have not a signification. This theory is founded on two postulates: (1) the equivalence of systems having a uniform motion of translation with respect to one another; (2) the propagation of light in space is effected with the same velocity in all directions. This theory, which was developed mathematically by Minkowski in 1908, was, for the most part, regarded with scepticism by physicists whose philosophy was formed under the influence of Mach and Kirchhoff. There is a very useful comparison of the theory of relativity with the theory of Lorentz. The crisis of the theory of relativity began when this theory undertook to make gravity enter into the domain of its considerations, and both in Einstein's theory of 1905 and in that of 1913 gravity is an unsurmountable obstacle. Still, the theory has an honourable place in the history of the criticism of the conceptions of space and time; and, whatever the fate of the theory of relativity, the new mechanics will continue to develop and keep mechanics in touch with the other disciplines of physics.] **A. Righi.** 'La natura dei raggi X.' [A succinct account of recent results and conclusions as to the nature of the X-rays. They seem most probably to be of the same nature as the rays of light, and thus to be a manifestation of electromagnetic waves in the ether.] **M. Hartog.** 'Samuel Butler and Recent Mnemic Biological Theories.' [The main thesis of Butler's *Life and Habit* (1877) had been anticipated by Hering in 1870 (*Memory, etc.*, Eng. trans., 4th ed., Chicago and London, 1913), and Butler, when he got to know this, wrote *Unconscious Memory* (1880, 1910). Butler took memory in his *Life and Habit* as an ultimate fact, and dwelt rather on the way of its behaviour than on the actual mechanism underlying it, very much as Semon has done. Hering, as a physiologist, suggested an explanation in terms of vibrations, which appears to have fascinated Butler; for in his notes he developed and extended it into a form which closely recalls Rignano's working out in his *Centro-epigenesis*. The conclusion of Butler's *Luck or Cunning* shows a strong advance in monistic views, and a yet more marked development in the vibration hypothesis of memory given by Hering and adopted in *Unconscious Memory*, associating it with speculations on the origin of chemical differences in connexion with the conceptions

of Newlands and Mendeléjeff. The teaching of *Life and Habit* has been summarised in *Unconcious Memory* in four main principles: (1) The one-ness of personality between parent and offspring; (2) Memory on the part of the offspring of actions which it did when in the persons of its forefathers; (3) The latency of that memory until it is rekindled by a recurrence of the associated ideas; (4) The unconsciousness with which habitual actions come to be performed. To these the author adds, (5) The purposive character of the actions of living beings, as of the machines which they make or select. In the *Notebooks* we find a different statement, with more practical detail. Butler popularised the teaching of Hering before its existence was known to him, anticipated Semon in his detailed comparison of memory with heredity, and, from a small suggestion of Hering's, planned out a physical explanation of memory in terms of vibrations, which was destined after his death to be more fully elaborated by Rignano (*The Inheritance of Acquired Characters*, Eng. trans., Chicago and London, 1911).] **Ph. Sagnac.** 'L'esprit et les progrès de la Révolution française. 1ère Partie: Les origines de la Révolution.' [The revolution was slowly born from the social and political regimen which Richelieu and Louis XIV. established and Louis XV. and Louis XVI. maintained and aggravated. The prestige of Royalty, the Church, and the Nobility had decreased, philosophy had helped to form public spirit, and the science of the time had helped to destroy the credit of the sacred books. A brilliant edifice, centuries old, was undermined, and there was the irresistible force of almost the whole of a suffering nation which was conscious of its rights.] **Ch. Guignebert.** 'Le dogme de la Trinité. 2ième Partie: L'évolution des deux triades et les premiers conflits.' [Examines how the life of faith and the progress of theology strengthened and complicated the two primitive triads, eastern and western, and then how the inevitable conflict between the two conceptions came to pass.] Critical Note: **R. Maunier.** 'L'art égyptien comme expression de la société égyptienne.' [On the subject of recent books by W. Flinders Petrie and G. Maspero.] Book Reviews. General Reviews: **M. Gortani.** 'Progrès récents de la geodynamique intérieure.' **G. Bourgin.** 'L'évolution des villes.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and French articles. A very interesting number. Vol. xv., No. 2. March, 1914. **T. J. J. See.** 'The Law of Nature in Celestial Evolution.' [We have found the fundamental law of sidereal evolution by first approaching and studying the most complex systems (the star-clusters); and, after making out the true secret of their formation, have generalised the law deduced from this study by the examination of sidereal systems of lower order. False premisses misled Laplace, Sir John Herschel, Lord Kelvin, Newcomb, Sir George Darwin, and Poincaré. The true path was opened up by Sir William Herschel, the first modern astronomer to give serious thought to the origin of clusters, in a series of papers published in the *Philosophical Transactions* from 1784 to 1818, and now accessible in Herschel's *Collected Works* (London, 1912). The neglect of Herschel's conceptions of cosmogony was due to the greater accessibility of Laplace's writings. The modern "capture theory" of stars under the clustering power of universal gravitation (See) and consequent development of sidereal systems is essentially an extension of the views of Herschel. The process of capture also leads to the arrangement of the internal structure of a nebula in concentric shells of uniform brightness. The light of the nebulæ is due chiefly to luminescence at low temperature, as by electric discharges in high vacua. There are many quotations from the papers of W. Herschel, and the other chief authorities in cosmogony are also briefly cited. The Herschel-See theory

applies equally to sidereal systems of all types. 'This quality of universality assures us the fundamental law of sidereal evolution, and alone makes possible the development of cosmogony as a new science of the stars, applicable, with unbroken continuity, to the entire sidereal universe.'] **C. Acqua.** 'Esistono fenomeni psicologici nei vegetali?' [Quite lately, phenomena of reaction have been discovered, which are very perceptible and almost general for many agents of the outer world: a mechanism for receiving excitations, a transport of the excitation along plasmatic filaments of communication, which may represent physiologically—although they are not differentiated from the morphological point of view—the nervous fibres of animals. The reply to the question put in the title 'depends on the extension which may be given to the psychological conception. The problem is equally proposed for plants and for lower animals which are situated at the end of the zoological scale. The hypothesis that even in these animals we must meet a psychological principle appears to be probable; 'but a decisive answer is not, and perhaps never will be, possible, since we would by such an answer penetrate into a part of that unknowable where the experimental method loses its efficacy and where the human mind has to confess its impotence.'] **É. Durkheim.** 'Le dualisme de la nature humaine et ses conditions sociales.' [It is only by historical analysis that we can give an account of how man was formed, 'for it was only in the course of history that he was formed'. The author's work on *Formes élémentaires de la vie religieuse* (Paris, 1912) illustrates this general truth by an example. When seeking to study sociologically religious phenomena, the author was led to the attempt to explain scientifically one of the most characteristic particularities of our nature. The principle on which this explanation rests was not perceived by critics, and the present article is a summary exposition of it.] **S. Langdon.** 'Babylonian Magic.' [An abstract analysis of the principles and categories of Sumero-Babylonian magic. The Babylonians supposed that in their bodies dwell divine spirits, and that these are in league with the great gods of heaven and earth, keeping man in favour with these gods. We may infer that no individual, unless he were a king, supposed that one of the great gods condescended to act as his personal deity. In the most ancient period the conception of *tabu* appears to have been extremely concrete. Opposed to the host of gods occupying finely differentiated positions in a vast pantheon, are the evil spirits, clearly personified concepts, remnants of ancient animal worship or evil souls of the dead. After the first dynasty, more ethical and abstract conceptions began to appear. The second development in the history of Babylonian magic appears to have been witchcraft or the power of banning an individual by ventriloquy, mystic movements, and sympathetic operations. We have no material which enables us to discover how the Babylonians supposed that human beings shared the functions of the ancient demons. When witchcraft appears, we have still the same conception concerning the man. The wizards attack the protecting gods also. But the method has become not a physical struggle between an unseen demon and an unseen deity for the possession of the soul and body of man, but a struggle between a human wizard and the protecting deity. And the struggle now is no longer a direct contest of the spirits but an attempt to control the indwelling deity by the black art. The article concludes with a few typical examples of both negative and positive magic chosen exclusively from the late period.] **W. Sombart.** 'Liebe, Luxus und Kapitalismus.' [Does not propose to analyse the relations which exist between wealth, liberty of the amorous life, desire of certain groups of the population to be esteemed by others, and life in the large towns, on the one hand, and the apparition of luxury, on

the other. Setting out from the fact that, since the beginning of the middle ages, a great luxury ruled, and attained, towards the end of the eighteenth century, great proportions, the author tries to find its explanation. A quantitative representation of the development of luxury is, as far as possible, given. Investigation of the relations which exist between the development of luxury and certain other social factors; in particular of the part which is due to woman, above all to woman in so far as she is the object of an illegitimate love (the *Weibchen*), in the evolution of the outer life of our epoch.] Book Reviews. General Reviews: **F. W. Henkel.** 'Nébuleuses et essaims.' **A. Kronfeld.** 'Nouveaux problèmes de la psychiatrie en Allemagne.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and Italian articles. Vol. xv., No. 3. May, 1914. **A. Einstein.** 'Zum Relativitätsproblem.' [A continuation of the discussion of the principle of relativity. Brillouin and Abraham have criticised, in *Scientia*, the theory: Einstein here gives his views as a partisan of the theory. The theory of relativity "in the narrow sense" is generally admitted at the present time. If the Newtonian equations hold with respect to a system of co-ordinates K, they also hold with respect to any other system moving with a uniform motion of translation with respect to K. The "principle of relativity in the narrow sense" is the hypothesis of the equivalence of all the systems referred to for the formulation of the laws of motion and the general laws of physics. This principle is as old as mechanics itself, and, from the point of view of experience, nobody could ever doubt its validity. If it has been and is still doubted, it is because the electrodynamics of Maxwell and Lorentz seems to be inconsistent with it. Suppose that the electrodynamical equations hold with respect to the system K; then every luminous ray is propagated in the vacuum relatively to K with a determined velocity c which is independent of the direction of propagation and of the state of motion of the luminous source. This deduction does not seem to be valid relatively to a system of moving co-ordinates. An exact analysis of the physical content of our spatial and temporal data has proved that the contradiction referred to rests on the two following arbitrary hypotheses: (1) The assertion that two events which take place in different places are simultaneous is independent of the choice of the system of reference; (2) The distance between the places where two events take place simultaneously is independent of the choice of the system of reference. When we give up these arbitrary hypotheses, the principle of constancy of the velocity of light, which results from Maxwell's and Lorentz's theory, becomes compatible with the principle of relativity. The hypothesis that one and the same ray is propagated with the velocity c with respect to all those systems with uniform motions of translation leads to what is known as "Lorentz's transformation". As for the theories of gravitation mentioned by Abraham, that of Nordström agrees both with the principle of relativity and with the condition of the weight of the energy of isolated systems. Abraham has wrongly asserted the contrary. The second part of the article is devoted to "the principle of relativity in the wide sense," and gives an account of Einstein's later work. The theory of relativity in the wide sense does not lead to the abandonment of the former theory of relativity, but is a development of this theory, which seems necessary if we put ourselves at the philosophical point of view described by Einstein.] **S. Arrhenius.** 'Das Milchstrassenproblem.' [On the problem of the formation of the Milky Way.] **F. Bottazzi.** 'Le attività fisiologiche fondamentali. Primo articolo: L'attività nervosa e i processi elementari su cui si fonda.' **J. A. Thomson.** (Sex-Characters.) [A critical estimate of the masterly work of Kammerer who has gathered together

recent experimental data on the origin, evolution, and development of sex-characters.] **A. Meillet.** 'Le Problème de la parenté des langues. [Deals with the principle of the genealogical classification of languages, and shows in what measure such a classification is actually possible and useful, and what we can hope from it.] **R. Michels.** 'Economia e politica.' Critical Note. **A. Mieli.** 'Les précurseurs de Galileo.' [An account of Pierre Duhem's researches on the origin of Galilean dynamics in the Middle Ages. Jean Buridan, who was rector of the Paris University from 1327 to 1347, clearly established the concept which science only gathered definitely with Leibniz, and which is called to-day "the concept of *vis viva*". He seems to have had an idea of the nature of an "impetus" as a product of velocity, volume, and density. By this the acceleration of falling bodies was explained. Buridan also applied to the heavens the dynamics established for terrestrial motions. Other men dealt with in Duhem's work are Nicole Oresme, who anticipated Copernicus, and Albert de Saxe, who anticipated a well-known mistake of Galileo's. A further note will examine the researches of Emil Rádl, who has investigated the character of the doctrines of Galileo, Descartes and Newton.] Book Reviews. General Reviews. **L. Suali.** 'L'histoire de la philosophie de l'Inde.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and Italian articles.

IX.—NOTES.

OCCAM'S RAZOR.

1. NEARLY every modern book on Logic contains the words: *Entia non sunt multiplicanda, praeter necessitatem:* quoted as if they were the words of William of Ockham. But nobody gives a particular reference to any work of the *Venerabilis Inceptor:* not even Sir William Hamilton, *facile princeps* (among English writers) in philosophical learning. My own fruitless inquisition for the formula, in those works of Ockham which have been printed, has led me to doubt whether he ever used it to express his Critique of Entities. This doubt is further justified by what I find, and cannot find, in laborious histories of mediæval philosophy. Haureau (in his *Philosophie Scholastique*, chap. xxviii.), Erdmann (in his *History of Philosophy*, I. s. 216), and De Wulf (in his *Mediaeval Philosophy*, s. 368), concur in giving another set of words, as those usually employed by Ockham: *Non est ponenda pluralitas* (or *Pluralitas non est ponenda*) *sine necessitate.* They do not even mention the common form of the *Novaculum Nominalium.* Nor does Prantl, in his large collection of citations: *Geschichte der Logik*, III., pages 327-420. But one of them (Note 758) contains: *Nunquam ponenda est pluralitas sine necessitate.*

2. The earliest use of the popular phrase, which I have lighted upon, occurs in an Inaugural Dissertation by Leibnitz in 1670, when he was only twenty-four: *De Stylo Philosophico Marii Nizolii*, s. 28 (*De Secta Nominalium*). He does not however profess to quote, but says in *oratio obliqua:* "Generalis autem Regula est, qua Nominales passim utuntur, Entia non esse multiplicanda praeter necessitatem". The words do not appear in the only philosophical work of Mario Nizzoli: *De veris principiis et vera ratione philosophandi:* published at Parma in 1553. Another edition was published at Frankfurt in 1674, under the new title *Anti-barbarus Philosophicus;* with the Dissertation by Leibnitz prefixed as an Introduction. In Hurter's *Nomenclator* (iii., 8), Nizolius is described as "Philosophiae scholasticae acer adversarius, Occami Nominalismi assecla". But he is better known through the many editions of his Ciceronian Concordance (*Thesaurus* C.). Whether the formula was again used by Leibnitz in his later works, I cannot say. But it might easily become current, if used in the lectures, or even the conversation, of a philosopher who became so widely influential in Europe.

3. Still, it is quite possible that Ockham did use the words somewhere, or that they were put together by one of his earlier disciples: *e.g.* John Buridan, Peter D'Ailly or Gabriel Biel. And, if any reader of MIND can give an exact reference, more than one of his fellow-readers will be grateful. I shall be particularly thankful, if directly informed beforehand. There is also a mystery about the origin of the phrase *Novaculum Nominalium,* which Ducange's Glossary ignores. And what Englishman first translated it into *Occam's Razor?*

4. Some students of Logic, to whom Ockham's rare works are not

readily accessible, may be glad to have at hand a short list of his various ways of expressing or indicating the Law of Parcimony.

(1) "Pluralitas non est ponenda sine necessitate." *Quodlibeta*, V., Q. 5 (lines 3 and 4); and I., Q. 3; III., Q. 2; IV., Q. 15. Also, *In Sententias* (*P. Lomb.*), I., *Dist.* 1. QQ. 1 and 2; and D. 7, Q. 2. See Erdmann, I., page 513; and De Wulf, page 418.

(2) "Non est ponenda pluralitas sine necessitate." *In Sentt.*, II., Q. 15 (second col.). See Haureau, II., pages 438, 442, 466.

(3) "Nunquam ponenda est pluralitas sine necessitate." *In Sentt.*, I., D. 27, Q. 2 (section K, not J as given by Prantl in his Note 758). The matter discussed is *Species Intelligibilis*.

(4) "Talis species non est ponenda propter superfluitatem." *Expositio Aurea: Periherm., Proem.* Prantl, N. 757.

(5) "Si duae res sufficiunt ad ejus veritatem, superfluum est ponere aliam (tertiam) rem." *Quodlibeta*, IV., Q. 19; (Prantl, N 768). *Ibid.* IV., Q. 24 (Haureau, II., 459).

(6) "Frustra fit per plura, quod potest fieri per pauciora." *Summa Tot. Log., Pars.* I, *cap.* 12, f. 6, r. A: (referring to *Intentio prima, secunda*). See Prantl, N. 768. Also, *In Sentt.*, II., Q. 15, sections O and Q; (referring to *Species Intelligibilis*). See Prantl, N. 759; Haureau, II., page 443; and De Wulf, page 424.

(7) "Sufficiunt singularia, et ita tales *res universales* omnino frustra ponuntur." *In Sentt.*, I., D. 2, Q. 4 (top of column 18).

W. M. THORBURN.

MIND ASSOCIATION.

THE Annual Meeting of the Mind Association will be held at University College, London, on Saturday, 3rd July, at 6 p.m. There will be a joint dinner of the members of the Association and the Aristotelian Society at 7, followed by a paper on "Mr. Bertrand Russell's Theory of Judgment" by Prof. G. F. Stout.